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No. .....

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In the Supreme Court

OF THE

United States

OCTOBER TERM, 1984

JACK S. FOSTER, PATRICIA FOSTER, JAMES H. MOSBY and VIRGINIA E. MOSBY,
Petitioners,

vs.

THE UNITED STATES OF AMERICA,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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QUESTIONS PRESENTED

1. Since the Government's primary valuation witness in this inverse condemnation proceeding now admits in his affidavit that his testimony was materially in error, resulting in a gross miscarriage of justice, due to his lack of knowledge of newly-discovered evidence in valuing the subject mineral deposit, did the Federal Circuit abuse its discretion by refusing to judicially notice the Haskell Declaration containing such newly-discovered evidence, when it indisputably establishes that on the very day of the inverse taking the Petitioners-Plaintiffs had a firm contract for sale of rock from the subject deposit for *one job* at a price which is more than seven times the amount of the judgment awarded for the entire 25-year economic life of the mineral deposit?

2. Were material errors of law committed by the Courts below in:

   a. Relying on the appraisal testimony of the Government's primary valuation expert who admitted he arrived at his valuation opinion *before* he had studied the market; and

   b. Valuing only a 10-year leasehold estate when the Court of Claims appellate division had previously held that Plaintiffs had "perfected their interest" by acquiring the entire underlying mineral fee; and

   c. Refusing to utilize the discounted cash flow valuation method which both industry and Government find most appropriate for valuing such mineral deposits, and instead relying on a comparable sales method which is inherently unreliable in valuing minerals?

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PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Petitioners Jack S. Foster, Patricia Foster, James H. Mosby, and Virginia E. Mosby, Appellants in the inverse condemnation valuation action below, respectfully pray that a Writ of Certiorari issue to review the judgment of the United States Court of Appeals for the Federal Circuit, entered in this proceeding on September 28, 1984.

All of the parties in the United States Court of Appeals for the Federal Circuit are listed in the caption.

OPINIONS BELOW

The opinion of the Court of Appeals rendered September 28, 1984 is not reported. The original opinion is set forth in Appendix A. The opinion of the United States Claims Court valuing the Government's taking of Petitioners' mineral interest is reported at 2 Cl. Ct. 426 (1983) and is set forth in Appendix B. The opinion of the Claims Court

awarding certain attorneys' fees and expenses is reported at 3 Cl. Ct. 738 (1983) and is set forth in Appendix C. The opinion of the Appellate Division of the United States Court of Claims rendered October 17, 1979 concerning liability for the taking itself is reported at 607 F.2d 943 (1979) and the slip opinion, 221 Ct. Cl. 412 (1979), is set forth in Appendix D. The judgment of the Court of Appeals for the Federal Circuit was entered September 28, 1984 and is set forth in Appendix E. The judgment of the United States Claims Court in the second trial (on the valuation of the taking and the attorneys' fees and expenses) pursuant to the opinion of October 20, 1983, was entered October 20, 1983, and is set forth as Appendix F.

JURISDICTION

The judgment of the Court of Appeals for the Federal Circuit (App. E) was entered on September 28, 1984. This Petition for Writ of Certiorari is being timely filed within 90 days thereafter. The jurisdiction of the Court is invoked under 28 U.S.C. Section 1254(1).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

1. The Fifth Amendment to the United States Constitution which provides in relevant part:

> "No person shall . . . be deprived of life, liberty, or property, without due process of law. . . ." and; ". . . nor shall private property be taken for public use, without just compensation."

2. Federal Rules of Evidence, Rule 201 provides in subsections a, b, d, e, and (f):

> "201. Judicial Notice of Adjudicative Facts.
>
> (a) Scope of Rule. This rule governs only judicial notice of adjudicative facts.

(b) Kinds of Facts. A judicially noticed fact must be one not subject to reasonable dispute in that it is either (1) generally known within the territorial jurisdiction of the trial court or (2) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned.

(d) When mandatory. A court shall take judicial notice if requested by a party and supplied with the necessary information.

(e) Opportunity to be heard. A party is entitled upon timely request to an opportunity to be heard as to the propriety of taking judicial notice and the tenor of the matter noticed. In the absence of prior notification, the request may be made after judicial notice has been taken.

(f) Time of taking notice. Judicial notice may be taken at any stage of the proceeding.

3. Rule 705 of the Federal Rules of Evidence, which provides:

"The expert may testify in terms of opinion or inference and give his reasons therefor without prior disclosure of the underlying facts or data, unless the Court requires otherwise. The expert may in any event be required to disclose underlying facts or data on cross-examination."

STATEMENT OF THE CASE

This Petition derives from an action for inverse condemnation under the Tucker Act,[1] of a large dolomite mineral deposit located on Vandenberg Air Force Base in Northern Santa Barbara County, California.[2] The taking was predi-

[1]28 U.S.C. Section 1491 (1976)

[2]A 4,238,000 ton marketable deposit estimated by Petitioners' expert witness (App. B, at 29b, para. 20); 2,000,000 tons total as estimated by defense expert Bowen. (App. B, at 6b)

cated on the Government's denial of any access to the deposit. At the time of the 1971 taking, Petitioners (also referred to herein as "Plaintiffs") held a lease for five years with a five year renewal option authorizing them to mine the subject rock deposit, for "rip-rap" (heavy, irregular chunks of rock used primarily for river, harbor, shore and bank protective projects). In November of 1971 and continuing thereafter until 1974, Petitioners made repeated requests for permission to enter the property and mine the rock. The initial request was by letter and specifically with reference to an urgent need to supply rip-rap for a construction contract along Highway 101 known as the Rincon Project. The Government was subsequently advised of Petitioners' then existing contract with Green Construction Company to supply a minimum of 50,000 tons of the rock at $4.00 per ton.[3] In May of 1972 Petitioners acquired the entire mineral fee interest from the original Lessor (McClellans). The Government at all times refused to permit Petitioners access to quarry the rock, not only for the Rincon Project but at all times thereafter.

In February, 1975, Petitioners filed this proceeding in the Court of Claims. Upon the first trial the Court found the subject deposit was a reserved mineral which had been retained by Petitioners' lessor, McClellans, and that a *temporary* taking had occurred when the Government first denied access to the deposit by letter dated November 4, 1971. (App. D) It awarded damages of $23,250.00 for the temporary taking.[4] The award, was based on testimony of the Government appraiser, R. L. Chapman, that $23,250.00 was the royalty value of the right to remove dolomite over a ten year lease term. (See App. B, 43b) Petitioners appealed (i.e., excepted to the Trial Judge's Report), and on October 17, 1979 a three-Judge panel of the United States

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[3]By letter dated November 19, 1971.

[4]App. D, 12d.

Court of Claims in *Foster vs. United States,* 607 F.2d 943 (1979) (App. D), held that: (1) the Plaintiffs' subsequent purchase of the entire interest in the mineral reservation was not prohibited by the Anti-Assignment Act but was rather "the perfection of the pre-existing interest in the land and claim against the Government;" (App. D, Ct. 7d n. 6) (2) that the subject dolomite deposit was a mineral which had been reserved by the original grantor McClellan in the 1942 Deed of the surface of Tract 83 to the Government; (3) that the Government's continued denial of access constituted a *permanent* taking as of November 18, 1971; and (4) that the case be remanded to the Court of Claims Trial Division for ascertainment of Plaintiffs' damages based on the permanent taking.[5]

Upon remand the Trial Judge (Harkins) requested that the valuation issue be submitted to the Court for decision on the basis of the evidence on record from the first trial. Petitioners objected and the second trial was held in January, 1981.

Re-trial of the damages (i.e., valuation) issue occurred in the United States Claims Court. Although appraiser Chapman testified at the first trial, he did not appear or testify at the second trial on the issue of damages.

At the second trial Plaintiffs' appraiser-geologist Robert H. Paschall valued the deposit at $5,100,000.00 for rip-rap and aggregate uses, utilizing the capitalizing earnings (or discounted cash flow) method of valuation. Paschall then subtracted the cost of the initial capital expenditures necessary to commence the operation and arrived at a fair market value of $4,221,000.00 as of November, 1971.[6] Plaintiffs submitted additional evidence on certain road improvement costs so as to result in a final market valuation of

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[5]App. D, 16d.

[6]App. B, 35b.

$4,200,032.00. In its decision of April 7, 1983 the Court held that "the value of Plaintiffs' leasehold interest taken on November 18, 1971 was $28,000.00, . . ."[7] Pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. Section 4654(c), 1976) the Court also permitted application for litigation expenses by Petitioners and a response by the Government to the application. In a separate opinion (App. C) dated October 20, 1983, the Trial Court allowed Petitioners $186,278.96 of the $214,736.69 claimed for costs, disbursements and expenses of the litigation. The Trial Judge disallowed the $28,457.73 difference, on the basis that these expenses attributable to the second trial were not recoverable because there had been neither a material increase in the damages award over that granted in the first trial, nor any settlement.

On February 27, 1984, Petitioners appealed to the Federal Circuit below, seeking relief from the decision of the Trial Court's on three basic grounds: (1) the Court had committed great error (and an abuse of discretion) in its findings with respect to the expert testimony and valuation; (2) the Court failed, in an error of law, to apply the discounted cash flow valuation method in reaching its decision; and (3) that the disallowance of one-half of Petitioners' legal fees and expenses incurred after the second pre-trial was an error of law. At the time of the filing of that appeal, Petitioners also requested the Court of Appeals to judicially notice five declarations concerning newly discovered facts regarding the Rincon Highway Project, and other matters highly relevant to the valuation issue. The declaration of Eldon B. Haskell (see App. H) indisputably established that on the very day of the taking a firm contract existed between Petitioners-Plaintiffs and Green Construc-

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[7]App. B, 61b, 62b. See also App. F (Judgment, United States Court of Claims October 20, 1983).

tion Company for the supplying of a minimum of 50,000 tons of rock at $4.00 per ton. The Court of Appeals refused to judicially notice the Haskell declaration and ordered that Appellants' brief make no reference to the matters sought to be judicially noticed. On September 28, 1984 the Court rendered its decision on the second appeal, affirming the Trial Court's valuation (of $28,000.00) and the amounts awarded Petitioners for attorneys' fees and expenses (App. A).

REASONS FOR GRANTING THE PETITION

I.

This Court's Power of Supervision is Appropriately Applied to Redress a Gross Abuse of Discretion.

This case represents an abuse of discretion so gross, and a miscarriage of justice so outrageous, as to properly invoke the Court's inherent power of supervision. Judicial errors of minor magnitude may have to be countenanced in the interest of court efficiency, but valuation errors exceeding seven hundred percent make a mockery of the Just Compensation Clause. The Constitution does not permit the Government to so overreach in its expropriative actions against its citizens.

The enormity of the error is evidenced by the Eldon H. Haskell Declaration which the Court below refused to judicially notice. At the first trial Petitioner James H. Mosby testified that at the time of the first access denial (which was later found to constitute the taking), Petitioners had an existing firm oral contract with Green Construction Company, the general contractor for the Rincon Highway Project. That oral contract was made with Green's project supervisor, Glenn McAfee, who at the times of both trials was working outside the United States. Repeated efforts to contact him were unsuccessful. Unbeknown to Petitioners

or their counsel, Mr. Haskell had entered into a private Joint Venture with Green Construction for that highway job and thereby had personal knowledge of the existence and terms of the oral contract. Due diligence would not have led Petitioners to discovery of that private Joint Venture arrangement, and they learned of it only by accident, long after the second trial.

Rule 201 of the Federal Rules of Evidence (with the supporting Advisory Committee Notes) establishes that judicial notice of "adjudicative facts" may be taken on appeal where such facts are "not subject to reasonable dispute" in that they are "capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." (Rule 201(a)(b)(2) and (f), Federal Rules of Evidence). Rule 201(d) requires the Court so requested to take notice if the party has supplied the necessary information.

That the Haskell Declaration is highly relevant is without question. It indisputably corroborates the trial testimony of James Mosby that on the very day of the taking there was an actual contract for the rock at a price which was seven times larger than the Trial Court's valuation of the whole deposit over its entire economic life. Additionally, it totally undermines the valuation testimony given the Trial Court (and accepted by the Court) from Mr. R. L. Chapman, the Government's chief appraisal witness. As indicated in the Affidavit of Mr. Chapman, (and the attached Declaration of Eldon Haskell) which Petitioners now request to be judicially noticed herein, (Appendix H), his trial testimony and valuation were materially in error because he did not then have knowledge (recently disclosed by the Haskell Declaration) that the contract Petitioners claimed to have with Green actually did exist. On the Rincon job alone, the contract price was more than seven times

and the conservatively estimated profit of $100,000 was more than three and a half times the value the Court assigned to the entire deposit over its whole 25 year economic life. The existence of the Green Contract and the fact that Green actually paid other quarries the same or higher prices for the stone, in addition to their transportation costs, clearly refutes Chapman's main assumptions regarding market radius, transportation costs, market prices for rip-rap, and yearly demand potential. See App. B at 14b, 15b, 16b, 22b-26b, 53b, 54b.

The issue as to the Appellate Court's proper role with respect to matters to be judicially noticed is not fairly resolved by retreat to the Government's argument below that the Court may only notice facts which are somehow patently indisputable.[8]

The Appellate Courts have on appropriate occasion taken judicial notice of adjudicative facts by making independent investigations into the facts by resorting to sources the Courts believe reliable. Courts have made their own investigations into records of other branches of government agencies, and have appointed, as an alternative to remand, an expert in a particular field of specialized knowl-

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[8]See Currie, *Appellate Courts Use of Facts Outside of the Record by Resort to Judicial Notice and Independent Investigation*, 1960 Wisconsin Law Review, p. 39; see *Brown vs. Board of Education*, 347 U.S. 483 (1954) (citing writings of sociologists and psychologists not in record); *Parker vs. Brown*, 317 U.S. 341 (1943) (referring to reports, books and bulletins on the economics of the grape industry not in the record).

Ibid. pp. 41-49, see *Jones vs. United States*, 137 U.S. 202 (1890) (inquiry of Court into records of Department of State); *Baginsky vs. United States*, 697 F.2d 1070 (Fed. Cir. 1983) (no remand required); *Ferguson vs. City of Kenosha*, 5 Wis. 2d 556, 93 N.W.2d 460 (1958) (inquiry into the office of aeronautics commission); *Green vs. Mut. Benefit Health and Accident Association*, 267 Ala. 56, 99 So. 2d 694 (1957) (right of Court to make informal independent search of facts and embraces informal inquiry made by experts).

edge to make a report to the Court of certain economic facts obtained and conclusions reached. In *Ives Laboratories, Inc. vs. Darby Drug Co.,* 638 F.2d 538, 544 n. 8 (2d Cir. 1981), the Court took notice of facts indicating that the premise of the Trial Judge's decision had no support.

In the Court below, Petitioners sought in good faith to present by the only vehicle reasonably available, and legally appropriate, highly vital information which they could not otherwise have presented at trial. To have requested a new trial to present the Haskell Declaration would have been a useless act. The Trial Judge, having heard the case twice already, and having found a nominal value each time, was clearly disposed to a nominal value under all circumstances.[9] While Appellate Courts have on appropriate occasions made independent factual review from the record below[10] and received new evidence on appeal[11], the Court below rejected the Haskell Declaration, relied upon the Trial Judge's review, and saw no "clear error" or "abuse of discretion."[12] Such a refusal is a gross abuse of discretion for it effectively cut off any opportunity to have the Haskell Declaration fairly considered.

In addition to its relevance, the Declaration of Eldon Haskell is reliable on its face. It is a confirmation by a non-party of the existence of a contract totally ignored by the Trial Court for valuation purposes. The fact that the key Government appraisal witness, Chapman (who de-

[9]The judge considered valuation of the operator's interest as "blue sky speculation" even though a permanent taking was shown. App. G.-Pretrial Conference Memorandum (May 7, 1980).

[10]*Baginsky vs. United States* (Fed. Cir. 1983) 697 F.2d 1070, 1074.

[11]*West Virginia Dept. of Highways vs. Brumfield,* 295 S.E. 2d 917 (1982) an eminent domain action where evidence discovered after the trial, was considered in light of false testimony by the state appraiser at trial regarding comparable sales of other real property.

[12]App. A, 4a.

clares his knowledge of Haskell personally and by reputation) would declare his own valuation in error, and to have resulted in a gross miscarriage of justice, is a compelling reason to regard Haskell's Declaration as not being "subject to reasonable dispute." Both Haskell and Chapman are disinterested persons in this matter. If "procedural fairness" is the goal of the Court's use of judicial notice under Rule 201,[13] the Court below has utterly failed to achieve that goal. Procedural fairness is a matter not only of a narrow decision as to the facts to be noticed, but of the greater impact of that decision on the case as a whole. Whether the Court below realized it or not, its refusal to notice Haskell's Declaration effectively closed all doors to any forum that would have considered the substance of the Declaration. A Trial Judge who disregarded Mosby's testimony on the Green contract and who wanted to render the decision on the second trial by submission of evidence from the first, was clearly not about to grant a new trial. The Court of Appeals' own refusal to independently consider the Trial Court's valuation, and its refusal to notice Haskell's Declaration, has left Petitioners with no recourse but to seek the aid and supervision of this Court. This Court, in *Protective Comm. for Independent Stockholders of TMT Trailer Ferry vs. Anderson*, 390 U.S. 414, 447-449 and 452-453 (1967), confirmed the propriety of its own involvement when an Appellate Court has affirmed a blatantly hostile and closed minded decision of the Trial Court[14]. When the miscarriage

[13]Subdivision b, notes of Advisory Committee, Rule 210, Federal Rules of Evidence.

[14]Id. at 449, the Court stated with respect to the projected future earnings of a company in reorganization: "The fundamental reason that there was insufficient evidence concerning the future prospects of TMT was that the Trial Court showed itself unalterably hostile to inquiries directed to TMT's future." And, at 452-453, . . . "The Trial Court shut its eyes to important developments and in so doing ignored a cardinal principle of proper valuation."

of justice is so great and the evidence of judicial error is so clear, the supervisory power of this Court is properly exercised.

II.

MATERIAL ERRORS OF LAW IN THE COURT BELOW:

a. **The Chapman Valuation.** At the second trial the Trial Judge relied on the valuation testimony of the Government's witnesses Robert L. Chapman, O. W. Bowen, W. R. Merrill from the first trial, and C. W. McClung's testimony at the second trial. The Judge relied most heavily on the testimony of Mr. Chapman, restating in his second trial opinion (App. B 14b-18b) most of his findings of fact from the first trial as to the value of the rights to extract dolomite from the deposit.[16] Mr. Chapman did not testify at the second trial. To have relied at all on the Chapman testimony constituted a serious error of law by the Trial Court, because that testimony was fundamentally unreliable.

The overwhelming defect is that Mr. Chapman had formed his opinion of value *before* he made an independent and personal investigation of the actual market demand for dolomite.[16] In particular, he acknowledged in his deposition that his initial valuation was based on the opinions of the Government's geologists (Bowen & Merrill) for projections of market demand. He later admitted that these geologists "did not use approved appraisal practices." The result was that after deposition, and before trial, Mr. Chapman proceeded to amass data in an effort to support his prior premature opinion. To work from a conclusion backward to supporting data has such inherent vice as to

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[16]App. B, 52b et seq.

[16]See App. A, 2a. The Court of Appeals made no independent inquiry of the adequacy of Chapman's testimony, as a matter of law.

render his entire testimony unreliable. The Trial Judge unfortunately based his award on this after acquired data, because the judgment after the first trial, the basis for which was clearly carried forward into the second trial opinion, was in precise amount of Chapman's valuation. To constitute a valid appraisal the market must be personally measured in *advance;* otherwise such opinion testimony has no probative value. *United States vs. 237,500 Acres,* etc., 236 F. Supp. 44 (S.D. Cal. 1964). To have primarily relied upon such evidence constitutes a clear error of law and particularly so in a condemnation case. See *State of Washington vs. U.S.,* 214 F.2d 33 (1954).[17] See also *Pete vs. United States,* (Ct. Cl. 1976) 531 F.2d 1018.

Not only was the Court's award based on an exceedingly slippery foundation, but its approval of such practice undermines the freedom of cross-examination of expert witnesses intended by Federal Rule of Evidence 705. As Petitioners stated at trial, the post-deposition development of a "basis" for the witnesses' opinion deprived Petitioners of the opportunity to fully question and evaluate the data underlying the expert's trial testimony.

b. **The wrong quantum has been measured.** The Trial Judge stated unequivocally that what was to be valued is the amount Petitioners were entitled to receive as just compensation for an operator's interest in a 10 year lease with a right to extract rip-rap. (App. B, 47b). The Federal Circuit opinion below held that the Trial Judge was "perfectly aware" (App. A, 1a, 2a, 3b) that he was to value the operator's interest. Yet his opinion from the second trial

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[17]At 214 F.2d 43, the Court well cites *Galloway vs. U.S.,* 319 U.S. 372 (1943) at p. 396 which ". . . well illustrates the rule that permits expert opinion to have the force of facts *when based on facts which sustain it.*" [emphasis added]

makes it clear that at best a 10 year lease interest was valued.[18] Further, the Chapman testimony on which the Trial Court relied valued only a royalty, without reference to the operator's interest (App. B, 16b, 20b and 54b) and valued the deposit only for rip-rap and roadbase uses without considering the market for aggregate used in concrete App. B, 22b, 23b), although substantially identical rock had been satisfactorily used in concrete construction at Vandenberg Air Force Base. (App. B, 30b, 31b).

For either the Trial Court on the Court of Appeals (by affirmation) to limit the valuation to a 10 year lease is error, not only with respect to what interest is to be valued, but also with regard to the manner in which this Court has indicated that a mineral interest is to be valued. It is crystal clear from the decision of the Appellate Panel of the Court of Claims that in subsequently purchasing the entire mineral fee estate, Petitioners had perfected their pre-existing interest in the land and claim against the Government.[19] A 10-year valuation life has no relevancy, for each side acknowledges the deposit would have a 25-year economic life. This Court in *Almota Farmers Elev. and Whse. Co. vs. United States,* 409 U.S. 470 (1973) held that when a leasehold interest is taken, the Government must compensate for not only the existing lease but also for a reasonable expectation of renewal. Analogously, this Court has also held that an operating coal lessee was entitled to a full depletion allowance, although its lease was subject to termination on short notice. *Commissioner of Internal Revenue Service vs. Southwest Exploration Corp.,*

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[18]App. B, (62b) where the judge specifically refers to his valuation of "the operator's interest in the leasehold, as well as the balance of the reserved mineral fee." Presumably the judge merely added $4,750.00 to his first trial valuation to reflect the purchase of the reserved mineral interest for $5,000.00.

[19]App. D, 7d, n. 6.

350 U.S. 308 (1956). See also *City of Phoenix vs. South Bank Corp.* (Ariz. App. 1983) 649 P.2d 293, 298. Similarly, Petitioners are entitled to the entire net value of the bundle of quarry products contained in the dolomite deposit (not just rip-rap) over its projected 25 year life. To value any lesser quantum of interest is error. The error is obvious since the Trial Judge awarded only $28,000.00 in his second decision and $23,250.00 in his first opinion, both of which judgments were rendered in the erroneous belief that only a 10-year lease was to be valued. A $4,750.00 difference supposedly reflects the balance of the deposit over the remaining 15 years! His opinion gives no itemization of the value elements of the $28,000.00 figure.[20]

c. **The discounted cash flow valuation is the only appropriate method in this case.** Recognizing that there is no standard of valuation to be dogmatically applied in every case of a Governmental taking, just compensation requires that whatever standard is most appropriate under the circumstances should be used. *Miller vs. United States*, 317 U.S. 369 (1943). The Federal Circuit obviously side stepped the question of whether the Trial Judge had applied the correct standard. The Court could find no clear error (App. A, 4a) in the Trial Judge's rejection of Paschall's analysis and yet mentions the Judge's highly biased comment that Paschall's analysis was "an interesting mathematical exercise" (Id. at 2a). For either the Trial or the Appellate Court to have made or affirmed such a statement displays a fundamental misunderstanding of

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[20]App. B, 61b-62b-49b. The judge merely states that he considered various aspects of the case and somehow decided on a final value of $28,000.00. It seems highly probable that the Court really just added the $5,000.00 price paid for the underlying mineral fee (which price was arbitrarily and unilaterally set by the elderly seller with full awareness of the cloud on title created by the Government's access denial) to the original $23,250 award.

the reality of the commercial market for mineral interests, the precedence of the federal courts, and the current practice of the Government itself in valuing its own mineral interests when it is a seller (lessor) rather than the buyer.

Petitioners cited the Court below to numerous authorities from prominent mineral law and mining industry sources, establishing that the discounted cash flow analysis is the method most likely to achieve a fair valuation of mineral interests.

The Government's appraisal witness at the second trial (Mr. McClung) cited "Economics of the Mineral Industries" (1964), published by the American Institute of Mining, Metallurgical and Petroleum Engineers, Inc., as a source on the discounted cash flow method. Louis Raymond, Senior Mining Engineer for Ford, Davis and Bacon, authored chapter 4 of this work and concludes at 131 therein:

> "In essence the present value of a mineral property is the sum of today's dollars that future earnings are worth."

And at 134:

> "The value assigned to *new* (emphasis added) or partly developed property is generally the difference between the total present value, based on discount of all future earnings and the value assigned to physical assets, working capital, and other costs that are necessary to get the property into operation."

And at 162:

> "In cases of eminent domain wherein the federal, state or local authorities have condemned mineral land for public use, the courts have handed down a most inter-

esting record of awards or settlements, many which have little relation to values derived through valuation procedures accepted in the market place of the mining industry. The court records often clearly show a profound struggle by judges, lawyers, and jury members to comprehend the subject of valuation where mineral land is involved.

As every valuator knows, when he fixes the value on a mineral property it is necessary to calculate the future profits from the extracted mineral."

In 15 Rocky Mountain Mineral Law Institute (1969), which Petitioners requested be judicially noticed at the inception of the second trial, the author comments at 321 that the reasons advanced in earlier cases for not fully utilizing the capitalization approach to market value (which reasons have since been rejected by the Courts) are not really apropos because:

"... the brute fact, often in evidence in the valuation of a particular property, is that its income-producing potential is the most important and key element which the buyer and seller take into account in arriving at a fair price to be paid."

At 325:

"A minority view has injected the impractical requirement that the income approach may be used only in the absence of comparable sales. [citations]. The [case law] view which better accords with appraisal technique and the actual activities of the buyer in the market (and the one which now preponderates) is that which recognizes that the capitalization of income is competent evidence when dealing with income-producing properties even if there are comparable sales which have taken place in the market [citations]."

At 327:

> "Those uncertainties and that speculation [which have previously been asserted in opposition to the income capitalization approach], however, should not outweigh the probative merit of testimony which relates what the buyer and seller are really talking about, to wit, the income potential of the ore body. The almost ritualistic incantation which [earlier had] rejected the capitalization approach out of hand therefore, was renounced in favor of the more practical, realistic and equitable exigencies attendant in the market place with respect to mining properties."

The comparable sales valuation method, while usually appropriate for residential and agricultural properties, is inherently unlikely to render the fair value of a mineral interest. The small number of sales of mineral interests and the unique physical and market characteristics of each particular deposit make the comparative sales method of nominal value.

The essence of the error of both the Claims Court and the Court below, is their failure to recognize the reality of the commercial market for mineral interests. The Court of Appeals has given unwarranted credit to the Trial Judge's extended effort to somehow elevate highly questionable comparable sales, while discrediting the valuation method of Robert Paschall, one of the nations most eminent experts on appraisal of mineral properties.[21] No one in

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[21]See App. B, at 54b, 55b n. 25. Mr. Paschall was the only witness on either side who is both a geologist and a professional appraiser. As a geologist for more than 43 years, he is a Senior Member (Nat. Resources) of the American Society of Appraisers, which is the only society which offers a specialty designation in Natural Resources appraisal.

He prepared for the American Society of Appraisers, the first examinations ever offered in the appraisal of mineral properties; he

touch with the realities of the mineral industry would have called Paschall's analysis "an interesting mathematical exercise."

Most of the country's "hard rock" minerals are located in the West. The Western federal courts which regularly deal with mineral law matters recognize and use the discounted cash flow method. In *United States vs. Silver Queen Mining Company*, 285 F.2d 506, 509 the Court recognized that some inherent speculation exists in any method of mineral valuation, but went on to uphold an award based on an expert's testimony analogous to that presented by Paschall here. In addition, the Court cited this Court's decision in *Montana Railway Company vs. Warren*, 137 U.S. 348, (1890), which holds that some uncertainty as to value is not grounds to allow the taking party to gain unfair advantage. If there is any case where unfair advantage from uncertainty of value has resulted, it is surely this case. The Government's own access denial to Petitioners precluded them from selling Green 50,000 tons of rock at $4.00 per ton, and thereafter selling to others. Yet now the Court of Appeals has affirmed the notion that Petitioner's claim is speculative because "ongoing mining operations are non-existent." (App. A, 3a) See also App. B, 45b. That is pure sophistry. When the Government's own actions prevented drill testing, development and sale of product, it simply cannot be heard to protest the absence of an ongoing market.

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was the Chairman of the National Committee on Geology Guides and Practices for the American Institute of Professional Geologists, and is an advisor to the Federal Department of Energy, in its program for the estimation of oil and gas resources.

He also worked for the State of California for 16 years as a Senior Petroleum and Mining Appraisal Engineer, authored Assessor's Handbook 560 ("AH 560") and has been a mineral valuation consultant to the mining states of Alaska, Nevada and Arizona.

The gross injustice of the Trial and Appellate Courts' actions here is well illustrated by the Tenth Circuit's vastly different treatment of a very similar case. In *United States vs. 179.26 Acres of Land in Daylan Co. Kansas* (10th Cir. 1981) 644 F.2d 367, the Court approved a valuation of a limestone deposit which the Government had condemned, based on testimony of the landowner's expert utilizing a capitalization of income method. The expert had made analysis of demand over a 20-year period, including a demand "predicated on statistics for per capita use based on projected population growth in the area", and other factors strongly analogous to those used by Paschall here. 644 F.2d, 369-370. The Court there rejected the Government's claim that the landowner's evidence was "largely speculative and conjectural in nature" (644 F.2d at 371), and held that the landowner had "met the burden of establishing by competent evidence the right to substantial compensation." In *United States vs. Silver Queen Mining Company, supra,* (285 F.2d at 510, n. 5) the Court pointed out that the Government inequitably claimed the lack of development when it had prevented any possibility of development!

Finally, the Courts below have allowed the Government to apply to Petitioners a valuation method which it would never apply to its own properties when it is a seller. The method recommended by the United States Geological Survey, Bureau of Land Management for valuation of Federal coal leases is the discounted cash flow method.[22] The Government seeks to sell its own properties at the true market price determined by a cash flow analysis, yet it cynically invokes the comparable sales method here in an effort to

[22]"Final Report and Recommendations of the Secretary on Fair Market Value and Minimum Acceptable Bids for Federal Leases," Office of Policy Analysis, December 1979, in evidence at the second trial as Plaintiff's Exhibit 105 at p. 6, therein.

limit Petitioners to a value which is grossly below the true value as established by industry-accepted methodology.

CONCLUSION

To prevent a gross miscarriage of justice and to assure that the Constitutional mandate of Just Compensation is applied by a trier of fact whose mind is not closed to the evidence, a Writ of Certiorari should issue to review the judgment and opinion of the Court of Appeals for the Federal Circuit.

Respectfully submitted,

CHARLES W. WILLEY
Attorney for Petitioners

APPENDIX A

NOTE: *This opinion will not be published in a printed volume because it does not add significantly to the body of law and is not of widespread legal interest. It is a public record. It is not citable as precedent. The decision will appear in tables published periodically.*

United States Court of Appeals

FOR THE

Federal Circuit

JACK S. FOSTER, PATRICIA FOSTER, JAMES H. MOSBY, and VIRGINIA E. MOSBY,

Appellants,

v.

THE UNITED STATES,

Appellee.

Appeal No. 84-724

DECIDED: September 28, 1984

Before BALDWIN, SMITH, and NEWMAN, *Circuit Judges.*
SMITH, *Circuit Judge.*

DECISION

In this inverse condemnation case, the judgment of the United States Claims Court, valuing the appellee's (Government) taking of appellants' (Foster) mineral interest at $28,000, *Foster* v. *United States*, 2 Cl. Ct. 426 (1983), and awarding certain attorney fees and expenses, *Foster* v. *United States*, 3 Cl. Ct. 738 (1983), is *affirmed.*

OPINION

1. The Experts' Testimony

Foster contends vigorously that the Claims Court clearly erred in evaluating the testimony and credibility of the Government's witnesses, particularly appraisal expert Chapman, whose testimony Foster claims is fatally flawed. On the other hand, Foster urges that this court rehabilitate the testimony of his expert witness, Robert Paschall, whose valuation Foster claims the lower court erred greviously in rejecting. We note initially that, as reviewing court, we do not assess the credibility of witnesses nor reweigh the evidence, and are constrained by the clearly erroneous rule concerning review of factual determinations. *See, e.g., United States* v. *403.14 Acres of Land*, 553 F.2d 565, 570 (8th Cir. 1977); *Heisig* v. *United States*, 719 F.2d 1153 (Fed. Cir. 1983).

As regards the Government witness Chapman, Foster contends first that Chapman arrived at his valuation and made up his mind about the market demand for Tract 83 rock products *before* he had studied the market. Whatever the intellectual procedure by which Chapman reached his conclusions, however, the Claims Court thoroughly analyzed and evaluated those conclusions. *Foster*, 2 Cl. Ct. at 433-34, 437-38, 451-52. This included full recognition of the deficiencies in Chapman's market demand analyses, as found by the trial court in the 1978 opinion concerning this case, such as: Chapman's likely overestimate of the extent of competitive supply; his underestimate of environmental constraints on quarry reopenings; and his overly restrictive view of the market area in which Tract 83 stone could be competitive. *Id.* at 452.

Foster also faults Chapman's analysis for valuing only Foster's royalty, as opposed to operator's, interest in the property. The trial court was perfectly aware, however,

that "[w]hat is to be valued * * * is the amount plaintiffs are entitled to receive as just compensation for the operator's interest." *Id.* at 449. In any event, the court's final valuation of $28,000 reflected McClung's estimate that the dolomite in Tract 83 would have a value between 1½ and 2 cents per ton. *Id.* at 455-56, 444. McClung derived this estimate from five sales and one condemnation sale of rock deposits in California between 1962 and 1977. *Id.* at 444. The trial court duly recognized the deficiencies in this data derived from both McClung's and Chapman's use of comparative sales figures. *Id.* at 448. This included recognition that the lowest allegedly "comparable" sales figure put forth, the $5,000 which Foster received in 1972 for all the reserved mineral interest in Tract 83, involved a clouded title because of the Government's claim to the dolomite deposit. *See, e.g., Foster* v. *United States*, 607 F.2d 943, 947 (Ct. Cl. 1979).

While Foster would have this court find as clearly erroneous the trial court's evaluation of the Government's expert witnesses, he would on the other hand have this court rehabilitate his primary expert witness, Robert Paschall, whose appraisal the Claims Court found to be merely "an interesting mathematical exercise." *Foster*, 2 Cl. Ct. at 455. We have reviewed Paschall's testimony, and the Claims Court's thorough analysis thereof, *id.* at 452-55, and find no clear error in the trial court's rejection of, among other things, Paschall's highly speculative use of statewide stone consumption and statewide population growth as future indicators of Tract 83 stone production. In sum, this court finds no clear error in the lower court's factual determinations and witness credibility assessments concerning valuation.

2. **The Method of Valuation**

Foster urges additionally that the Claims Court erred as a matter of law in rejecting the income capitalization approach to valuation of minerals. That court did not flatly reject that method, however, but thoroughly considered it both as regards Paschall's elaborate use of the theory and the Government's modified use of the method. *Id.* at 447. The court rightly recognized the particularly speculative element in the approach where, as here, ongoing mining operations are nonexistent. *Id.* at 448. Likewise, the Claims Court recognized the limitations of the comparative sales method of valuing mineral properties: "it is exceedingly difficult to isolate sales that accurately reflect a substitute for the property being appraised." Id. at 447. In any event, Foster is incorrect in asserting that in both industry and the courts the income approach is applied exclusively and dogmatically in mining valuation cases. Indeed, as our predecessor court has noted: "Dogmatism is clearly out of order in a modern valuation case." *Cities Service Gas Co.* v. *United States*, 580 F.2d 433, 438 (Ct. Cl. 1978).

3. **Litigation Expenses**

Finally, Foster contends that the Claims Court erred as a matter of law in disallowing half of his litigation expenses incurred after the pretrial conference prior to the second trial. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 requires the trial court, in a taking case such as this, to award the plaintiff "such sum as will in the opinion of the court * * * reimburse such plaintiff for his reasonable costs, disbursements, and expenses, including reasonable attorney, appraisal, and engineering fees." 42 U.S.C. § 4654(c) (1982). The Claims Court awarded Foster $186,278.96, a sum which reimbursed him for all such categories of expenses incurred prior to July 1, 1980, and for half of those incurred after July 1,

1980, involving the second valuation trial. *Foster*, 3 Cl. Ct. at 744-45. This was done in a carefully reasoned, detailed opinion by the same court which had dealt intimately with the case since 1975. That court found Foster's accounting of fees and costs over the 9-year period to be thorough and, until the second trial on valuation, entirely reasonable.

Our standard of review of such opinion — *i.e.*, whether the sum awarded covered "reasonable" costs — is limited. Whether we apply the clearly erroneous standard to the Claims Court's determination on fees, or, as the Government urges, the abuse of discretion standard, we affirm. The continued multimillion-dollar gulf between the parties' claimed valuations, even after the trial court had expressed formal skepticism of Foster's new evidence prior to proceeding with the second trial, constitutes sufficient grounds for the lower court's refusal to award Foster every cent he expended on his case. We decline Foster's request that we exercise our discretion to award Foster attorney fees for the appeal to this court.

APPENDIX B

In the United States Claims Court

(No. 34-75)

(Filed: April 7, 1983)

JACK S. FOSTER, *et al.* v. THE UNITED STATES	Inverse Condemnation; Just Compensation; Reserved Mineral Rights: Interest; Dolomite Deposit on Vandenberg Air Force Base.

Charles W. Willey, Los Angeles, California, attorney of record, for plaintiffs. *Richard J. Longpre'*, of counsel.

Gerald S. Fish, Washington, D.C., with whom was *Assistant Attorney General Carol E. Dinkins*, for defendant.

OPINION

HARKINS, *Judge.*

Previous proceedings, in the United States Court of Claims, determined that the Government is liable for a permanent taking of plaintiffs' property, represented by the right to extract and remove dolomite rock from two deposits on Tract 83 on Vandenberg Air Force Base, and that the taking occurred on November 18, 1971. The property taken is part of the mineral interest reserved by plaintiffs' predecessors-in-interest when they sold Tract 83 for $22,750 to the Government on October 29, 1941, in connection with the activation of Camp Cooke, an Army installation to train armored and infantry divisions. On the taking date, plaintiffs were lessees, through a lease dated July 8, 1971, with the right to extract and remove all riprap rock.

The lease did not include sand, gravel, diatomaceous material or petroleum products. The term was for 5 years, commencing June 1, 1971, with an option to renew for a period of 5 years on expiration of the original term; at an annual rental of $300 payable on June 1 of each succeeding calendar year, supplemented by monthly payments of 25 cents per ton of rock removed.

On November 18, 1971, plaintiffs were denied permission to survey and drill test a dolomite deposit for riprap rock. Thereafter, on May 2, 1972, plaintiffs for $5,000 purchased all of the reserved mineral interest in Tract 83, including the reversionary interest in the lease retained by the original owners-lessors.

After trial in 1977, the October 18, 1978, trial judge's opinion stated that there had been a temporary taking of plaintiffs' right to extract and remove dolomite, that the date of taking was November 18, 1971, and that just compensation for the property right temporarily taken was $23,250, with interest from November 18, 1971, to the date of payment. The October 17, 1979, opinion[1] of the Court of Claims determined that plaintiffs' mineral rights had been permanently abrogated by defendant, and remanded the case to the trial division for ascertainment of plaintiffs' damages. The court specifically refrained from any "intimation that any one method employed by any of plaintiffs' or defendant's experts for the purpose of determining just compensation has been adopted or approved by the court." The court also stated that "the value of plaintiffs' entire mineral interest was, in the absence of comparable sales, the fair market value of the minerals in place on the date of the taking."

The property interest that was taken on November 18, 1971, and which is to be valued in these proceedings on

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[1] *Foster* v. *United States*, 221 Ct. Cl. 412, 607 F.2d 943 (1979).

remand, is plaintiffs' leasehold interest, sometimes termed "operator's interest" or "working interest". Defendant has not contested plaintiffs' right to explore for and remove, under the 1941 and 1972 deeds, all oil, gas, asphaltum and other hydrocarbon substances, and other minerals including diatomaceous earth (except dolomite at a specific site on Tract 83). The value of plaintiffs' total reserved mineral interest on Tract 83 is not in issue. The property to be valued is the entire mineral interest in the right to extract and remove dolomite from a specific site. This value, the court stated, was to be determined on the basis of evidence already produced by the parties, plus any relevant, non-cumulative additional evidence which either party may desire to offer.

In further proceedings, plaintiffs argued that additional valuation evidence was needed to overcome deficiencies in the record that had been criticized in the trial judge's October 18, 1978, opinion. New evidence, it was claimed, would address credibility questions that resulted from a proliferation of expert witnesses, and the wide variation shown in the record in factors considered, techniques utilized and values ultimately advanced by the experts. Pursuant to plaintiffs' request, a second trial was held in January 1981; plaintiffs called nine witnesses and defendant called four witnesses. Posttrial briefing was completed January 15, 1982. On October 1, 1982, the case was transferred to the United States Claims Court pursuant to section 403(d) of the Federal Courts Improvement Act of 1982.[2]

Evidence relevant to valuation of plaintiffs' property interest in Tract 83 is contained in the records of both trial sessions.[3] In both trials, the parties' evidence was based

[2]Pub. L. No. 97-164, § 403(d), 96 Stat. 25, 58 (1982).

[3]Plaintiffs' valuation evidence primarily is included in testimony an exhibits of Dr. Donald W. Weaver, David McVay, William P.

on the concept that the taking had been permanent. Notwithstanding the supplemental second trial, the parties' estimates of the value of the property taken continue to vary widely.

After the first trial, plaintiffs' final valuation of defendant's taking of a right of access to the Tract 83 deposits was $4,293,500; and defendant conceded that the denial of the right to extract and remove dolomite had a value of $23,500. After the second trial, plaintiffs' final claim is $5,029,532. During the second trial, defendant's appraisal expert, at different times, presented three values based on changing volume estimates: $126,000 (8,400,000 tons), $27,000 (1,800,000 tons), and $40-53,0000 (2,650,000 tons). Defendant's final contention is that the property taken has a value of $23,250.

The findings of fact, and the final valuation of $28,000 for plaintiffs' property that was taken, is based upon the record compiled in both trial sessions.

FACTS

I. The following findings of fact were incorporated in the October 18, 1978, opinion of the trial judge, and were not ruled upon by the United States Court of Claims in its October 17, 1979, opinion. These findings are consistent with the evidence adduced in the second trial and are adopted in this court.

1. Tract 83 contains approximately 876.26 acres; the dolomite deposit in issue on Tract 83 occupies approximately 22.54 acres. The deposit in issue appears on the surface as two bodies — an eastern body and a western

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Schmidt, and Robert H. Paschall. Defendant's valuation evidence primarily is included in testimony and exhibits of Robert L. Chapman, Oliver W. Bowen, William R. Merrill, J.S. Ferguson, Jr., and C. William McClung.

body (hereinafter sometimes the "eastern deposit" and the "western deposit").

2. (a) Plaintiffs' geologist (Weaver), by interpretative mapping techniques, plotted the eastern deposit and the western deposit as single, unified masses. Defendant's geologist (Merrill), utilizing outcrop mapping techniques, plotted nine groups of deposits: groups A and B in the eastern body and groups C, D, E, F, G, H, and I in the western body. Group C was a collection of five separately delineated outcroppings. Defendant's geologist acknowledged that groups A and B very probably were connected at depth and that group C possibly could be connected beneath the surface.

(b) The eastern deposit is approximaely 1,800 feet along its southern boundary and approximately the same distance, although irregular or jagged along its northern boundary. The eastern deposit varies from a maximum of 384 feet to a minimum of 180 feet in width, with an average width of approximately 300 feet. The eastern deposit probably has a depth of more than 100 feet and possibly may go down several hundred feet. Plaintiffs' geologist asserted that the western body was one continuous mass, approximately 2,400 feet long, and varying in width from 200 to 300 feet. Plaintiffs' expert estimated that the western deposit would extend at least to a 100-foot depth and probably to a much greater depth. Plaintiffs' geologist estimated that the eastern deposit encompassed an area of 444,000 square feet (or 10.19 acres) and, at a depth of 100 feet, contained a volume of 1,644,000 cubic yards; at a depth of 150 feet, the volume would be 2,467,000 cubic yards. The western deposit encompassed 538,000 square feet (or 12.35 acres). At a 100-foot depth, its volume would be 1,993,000 cubic yards; at a 150-foot depth, the volume would be 2,989,000 cubic yards. Total volumes, according to plaintiffs' estimates, for both deposits at the 100-foot depth

would be 3,637,000 cubic yards and, at the 150-foot depth, 5,456,000 cubic yards.

(c) Both parties' experts agree that the two deposits lie between the Hondo fault to the south and the Monterey formation to the north. The Hondo fault separates deposits to the south that were formed in the Mesozoic period and are much older than either the subject deposits or the adjacent Monterey formation, which consists of a continuous sequence of dominantly siliceous shales, to the north. Plaintiffs' geologist depicted the Hondo fault as forming the southern boundary of the eastern deposit, coinciding with the southern boundary of the western deposit at its eastern end, and as lying from 100 to 200 feet south of the remainder of the southern boundary of the western deposit. Defendant's geologists concur that the Hondo fault is in the general location depicted by plaintiffs' geologists, although one of defendant's geologists (Merrill) did not map the Hondo fault because it was not evidenced on the surface.

(d) The expert witnesses were in substantial disagreement as to the effects produced on the dolomite deposits by geologic activity along the Hondo fault. Plaintiffs' experts interpret the observable geologic phenomena as indicative of a series of faults perpendicular to the Hondo fault, which had fractured transversely a continuous dolomite deposit. Defendant's experts, on the other hand, interpret the same geologic phenomena as indications of extensive fracturing and churning of the dolomite deposits, with a resultant intermixture of heavily siliceous materials.

(e) One of defendant's geologists (Bowen) asserted that the deposits were breccia that consisted of at least six different kinds of rock, in effect "a group of fragments cemented together." He listed, as kinds of rock, dolomite, high calcium limestone, Monterey shale, pebbly magnesian limestone, solid quartz, massive quartz, and vein quartz,

and characterized the deposits as a combination of rocks or a combination of minerals. The eastern deposit he identified as "silicified limestone breccia," in which the carbonate had been replaced by quartz; the western deposit to him had less brecciation and appeared to be more pure than the eastern deposit, but was shallow and lenticular. Both deposits, described as mixed rocks and not dolomite, were estimated to contain no more than 2 million tons of limestone or dolomite.

(f) Another of defendant's geologists (Merrill) identified the eastern deposit as consisting of heterogeneous carbonate rock, which he termed siliceous calcitic dolomite, and the western deposit as being composed of a series of lenticular bodies, in which other material, such as the Monterey platy shales, some sandstones, and other rocks were present. The western body was not viewed as a continuous body of carbonate rock, but it was possible that the lenticular bodies could go to depth, and that the western deposit approached, in some areas, a 95 percent purity in dolomite. Faulting and fracturing in the deposits made him doubt that any large-sized derrick stone could be produced, but the deposits would be suitable for production of medium-sized riprap. He estimated that the quantity of rock suitable for this purpose, in both deposits, would be approximately 1,695,230 tons.

(g) The Los Angeles District, Corps of Engineers geologist (Ferguson), reported the dolomite deposit as having an approximate overall length of 1,500 feet and a width varying from 500 to 1,000 feet. He questioned whether the deposit could produce substantial quantities of large-sized derrick stones. His February 25, 1976, report stated:

> 5. The most striking visual feature of this deposit are the close spaced joints as seen in the upper flanks of the outcrop. These joints have been caused by

movement along the nearby Hond[o] Fault. It is then reasonable to assume that many of these open joints persist to some depth, thus raising doubt that this deposit is capable of producing sizeable quantities of large sized derrick stone or facing rock. However, the deposit may be suitable for production of rip rap 4" to 12" in size.

* * *

(h) Defendant's quarry expert (Woodward) viewed the deposit as common rock, and not a mineral deposit, but concluded that the deposits presented no serious mining problems. His report states, in part:

> There would be no serious mining problems. The deposit is quite accessible. The development of low faces (no higher than 30 ft.) could be done very easily. Most of the tonnage occurs above ground and there would be no stripping or wasting of material. The deposit could also be mined 50 ft. below grade. This would produce another 750,000 tons. However, this would mean that either about 224,000 tons of the 750,000 tons would have to be left in place or an additional 224,000 tons of rock would have to be mined in order to develop the necessary slopes to meet the safety standards of the various governmental regulatory bodies, which would increase the cost accordingly.

(i) The eastern body has virtually no overburden and the site could be prepared for quarrying expeditiously. It is less obvious that the western body can be quarried economically; the western deposit, however, could be prepared for quarrying in less than a week.

(j) At least 1.5 to 2 million tons of mineral suitable for riprap purposes can be recovered from the Tract 83 deposits. The actual dimensions of the deposits and the volume of mineral that could be removed by conventional

quarrying methods cannot be determined without further investigation, such as core drilling or test excavations.

3. (a) The Tract 83 deposits are suitable for use as hard rock in riprap and for similar uses in the construction industry. Stone used for riprap purposes may be classified by size (plaintiffs), as follows:

(1) 4″ - 12″ (filter stone and light erosion protection);
(2) 6″ - 18″
(3) 12″ - 24″
(4) 20″ - 40″; and
(5) derrick stone, 4′ - 7′ (6 to 20 tons);

and by weight (defendant), as follows:

Small stone not of riprap size and less than 25 lbs.;

25 - 100 lbs.;
100 - 500 lbs.;
500 - 1000 lbs.;
1 ton - 5 tons [derrick stone];
10 tons - 20 tons [derrick stone].

(b) Derrick stone, used almost exclusively on breakwater and marine developments, is referred to, interchangeably, as "armor stone" or "capstone." In the Army Corps of Engineers' design memorandum for the Port San Luis, California, project, stone sizes are graded as Core Stone "C" (4-ton, 200-lb., 20-lb., 1-lb., and #4-sieve sizes); Core Stone "B" (4-ton, 1,000-lb., 200-lb., 20-lb., and 1-lb. sizes)' and capstone in eight sizes from A-3 to A-13. Capstone "A-3" stones have a 6-ton maximum, with not less than 50 percent by weight in pieces 3 tons or more and no stone less than 2 tons in weight; capstone "A-13" stones have a 22-ton maximum, with not less than 50 percent by weight in pieces 13 tons or more and no stone less than 7 tons in weight. The Army Corps of Engineers geologist testified that dolomite from Tract 83 would be within the perimeters

of the specification guide for the Port San Luis, California, project.

(c) Other construction uses for which the Tract 83 deposits are suitable include aggregate, railroad ballast, roofing granules, terrazzo chips, asphalt concrete (blacktop), magnesian limestone for plaster, and decorative garden stone.

(d) Dolomite has the following additional uses:

Magnesium Refractories and Chemicals

Dead-burned dolomite
Periclase
Chrome-magnesia brick
Magnesium oxide
Hydrated magnesia
Magnesia pharmaceuticals
Magnesium chemicals

* * * * *

Agriculture

Soil conditioner
Animal and plant food
Ingredient in insecticides and fungicides

Miscellaneous Uses

Manufacture of glass
Source of carbon dioxide
Source of metallic magnesium[.]

(e) Consumption of dolomite in California in 1970 was estimated in Bulletin No. 194, California Division of Mines and Geology, "The Mineral Economics of the Carbonate Rocks" (1973), as follows:

Use	1970 Quantity in short tons	1970 Value
1. Magnesian lime	362,199	$2,710,922
2. Concrete aggregate and road base	50,212	109,033
3. Dead burned dolomite	43,073	75,360
4. Magnesium chemicals	27,468	130,473
5. Terrazzo chips	23,363	446,160
6. Glass manufacturing	21,503	88,347
7. Soil conditioners	12,783	31,958
8. Refractory stone	11,464	57,320
9. White surfacing	10,608	31,739
10. Poultry grit	8,126	24,378
11. Roofing granules	3,208	42,987
12. Magnesium metal	1,403	18,800
13. Steel flux	943	2,358
14. Building stone	469	3,865
15. Riprap	*	*
16. Miscellaneous (mainly aggregates of unspecified type)	31,514	52,807
TOTALS	608,336+	$3,826,507+

* Not available for 1970; in 1969, quantity was 15,494 short tons, value was $32,235.

(f) Plaintiffs' appraisal expert (McVay) estimated the demand and market value of secondary uses for dolomite from the Santa Barbara-Los Angeles area as follows:

A. Soil supplement —	5 tons/year
B. Ceramics —	96 tons/year
C. Pharmaceuticals (deducting amount purchased from ceramic industry)	40 tons/year
TOTAL	141 tons/year

In order to capture this market it will be necessary to slightly undersell Kaiser Minerals of San Francisco:

Assuming lower price of $50/ton

141 tons/year @ $50/ton = $7,050.00/year

(g) The Tract 83 deposits contain mineral dolomite of sufficient purity for all primary and secondary uses listed in findings 3(a) through 3(f). Availability of markets for dolomite from Tract 83 for any of these uses, however, is dependent upon factors additional to chemical composition of the mineral deposits. All parties agree that the Tract 83 deposits would be suitable for use as riprap, including derrick stone, and other construction rock usages, but differ on quantities available and market demand for such uses.

4. (a) There is a market for riprap in the geographical area of Tract 83; such market is limited (1) by the distance over which stone can be hauled economically from its source and (2) the proximity of competing rock sources. The quantity of dolomite in the Tract 83 deposits suitable for riprap and other construction uses probably is sufficient to satisfy the demand that reasonably can be anticipated to arise in the next 25 years. Most riprap is used in connection with federal, state, and local government projects, and the larger sized derrick stone is used only in connection with marine projects such as ocean breakwaters. Very few successful rock quarries are based solely on production of riprap; fines, however, are produced as a byproduct of large stone production and are available for sale when there is a market. Plaintiffs' quarry expert (Schmidt) estimated that the Tract 83 dolomite deposits, when quarried in a fashion to produce a maximum amout of armor stone, would yield about 40 percent armor stone in the A-10 to A-13 sizes, and about 60 percent smaller stone. Defendant's geology expert (Bowen) estimated the Tract 83 deposit could be expected to yield 40

to 50 percent riprap of all sizes, but under 5 percent of the 1-to-2 ton derrick stones when quarried in such a fashion.

(b) Armor stone is a premium size, and is difficult to produce in pieces 8 tons or larger. Quarries that are able to produce large armor stones in quantity are not numerous, and the geographical area within which armor stone competes is a much larger market area than the market are for the general run of quarry rock. The market area for armor stone, to be used in connection with any particular project, is dependent upon a number of factors, including size of project, number and capabilities of supply sources within an acceptable area, and modes of transportation available. Water transportation, when available, substantially extends the radius in which armor stone may be marketed. The geographical area within which armor stone is likely to find a market is substantially larger than the market area for smaller riprap from the same source.

(c) The primary trading area for the Tract 83 deposits, in which materials from that source would have a competitive advantage over materials from all other sources, would be limited to a radius of approximately 15 miles from the deposit. In general, the primary trading area would be limited to projects in the Lompoc, California, area. The geographical area within which the Tract 83 deposits would be competitive with other quarries would extend to a radius of from 50 to 55 miles for ordinary stone sales. For governmental projects that require armor stone, the market area in which the Tract 83 deposits could compete would extend to a radius of from 100 to 150 miles.

(d) Plaintiffs' appraisal expert (McVay) estimated the average demand for stone from the Tract 83 deposits as approximately 60,000 tons per year.

(e) Defendant's expert geologist on mineral economics of carbonate rocks (Bowen) estimated probable market

demand in Santa Barbara County and vicinity, for 25 years, as follows:

Commodity	Probable Market (Short Tons)
1. *Riprap* [all sizes]	2,000,000 plus
2. Road Base (all types probably can be made from the Tract 83 stone)	30,000,000
3. Asphalt Concrete (Blacktop)	25,000,000

He estimated the amounts probably available from Tract 83, as follows:

Commodity	Rock Probably Available from the Tract 83 Limestone Deposit	Percent of Available Rock
1. Riprap		
Small stone not of riprap size and less than 25 lbs.	1,000,000 – 1,200,000	50 – 60
25-100 lbs.	200,000 – 225,000	10 – 12
100-500 lbs.	175,000 – 200,000	8 – 10
500-1000 lbs.	100,000 – 120,000	5 – 7
1 ton-5 tons	100,000 – 150,000	5 – 7.5
5 tons-10 tons	50,000 – 75,000	2.5 – 3.5
10 tons-20 tons	25,000 – 30,000	1.5 – 2
2. Road Base (all types probably can be made from the Tract 83 stone)	*	*
3. Asphalt Concrete (Blacktop)	*	*

* Not estimated.

(f) On the basis of historical use data and future growth predictions, defendant's appraisal expert (Chapman) estimated the potential demand for rock products in the Lompoc trade area, both riprap and aggregate, and pro-

jected a demand for material from the Tract 83 deposits at an annual average of 10,000 tons, as follows:

Potential Demand For Subject Property Trade Area

(15 Mile Radius)

1970	18,000 Tons
1974	12,000 Tons
1977	15,000 Tons

Project Demand For Subject Property Rock:

10,000 Tons Per Annum (Average)

His analysis to determine the projected demand postulated an intermittent demand for riprap at 25,000 tons, at 5-year intervals, and an annual capture of the market for aggregate of 6,500 tons. Special projects might increase the annual average demand for all uses to approximately 11,500 tons from the Tract 83 deposits. His summary was as follows:

Summary of Demand Analysis:

Lompoc Area — Rip-Rap Rock

Demand: 25,000± Tons in 5± Year Intervals

Lompoc Area — Aggregate Rock — (Excluding use in Concrete)

Method (Projection)	Mean Annual Tonnage
Kaiser — Per Capita	13,000±
Lompoc Building Permit	6,500±
County Per Capita	13,000±
Opinion Poll	13,000±
	10,000±
	2,500 - 5,000±

Based upon our extensive market investigation, it is our opinion that the subject dolomite site would have the following probable demand for its rock products:

Subject — Rock Demand:

Lompoc Area Demand	13,000±	Tons
Subject — 50% Market	x .50	
Capture Rate	6,500±	Tons annually-Aggregate Rock
Lompoc Rip-Rap Demand	25,000±	Tons in 5± Year Intervals

5. (a) Defendant's appraisal expert (Chapman) surveyed royalties paid to owners of eight active rock quarries within a competitive range of the subject deposit and found that the range of royalty payments was from 10 cents to 25 cents per ton for typical quarry operations, and that the royalties could go as high as $1 a ton for specific rock sizes and smaller tonnages.

(b) Plaintiffs' appraisal expert (McVay) submitted information that royalties paid to holders of mineral rights for riprap varied from 25 cents per ton to $1.05 per ton, as follows:

Quarry	Rock Size	Royalty Per Ton
Missile City Quarry, Lompoc	Up to 50 Lbs.	25¢
	50 Lbs. — 1 Ton	50¢ (1968)
	Over One Ton	$1.00
San Julian Ranch, 10 miles south of Lompoc	All Sizes	25¢ (1970)
Soledad Quarry Saugus	All Sizes	25¢ (1965)
Ducor Quarry	All Sizes	25¢ (1971)
Bakersfield		45¢ (1974)
Elephant Mountain Quarry, Barstow	All Sizes	$1.05 (1974)
Opinion of Alex	All Sizes	25¢ (1971)
Madonna		50¢ (1976)

(c) Plaintiff's quarry operator (Schmidt) testified that, in the Lompoc-Vandenberg area, he had paid $3 per ton at the El Jaro quarry and $2.75 per ton at the Santa Margarita quarry in 1976.

6. (a) Between 1971 and 1977, there were several construction projects completed for which, if operative, a quarry at the Tract 83 deposits would have been able to compete. These projects included:

> The waste water treatment plant at Lompoc — 35,000 tons of stone;
>
> Parking lot at Port San Luis —substantial tonnage;
>
> The atomic reactor electric generating plant at Diablo Canyon — substantial tonnage; and
>
> The Rincon highway project — 25,000 tons of armor stone supplied by Riverside quarry, which was approximately 145 miles from the Rincon site.

(b) Future large-scale projects upon which a quarry at the Tract 83 deposits would be in a position to bid competitively, include the following:

> (1) Port San Luis Obispo harbor breakwater project (Avila) — anticipated demand of from 600,000 to 1 million tons of riprap of various sizes and 135,000 tons of size A-13 armor stone; and
>
> (2) Liquified Natural Gas (LNG) project proposed at Point Conception, involving two breakwaters — estimated demand for 110,000 tons of stone.

7. (a) Plaintiff's appraisal expert (McVay) found no comparable sales on which to base a valuation of the Tract 83 deposits on the traditional market data approach. He made two separate value determinations:

(1) Royalty interest, defined as the amount paid to the owner to give up the right to mine the mineral, valued by capitalization of income; and

(2) Operator's interest, defined as the value of the mineral interest in the hands of the quarry operator (as distinguished from a passive landowner, who would extract only a royalty).

McVay utilized the volumes projected by plaintiff's geology experts *i.e.*, 13,094,000 tons, when mined to a depth of 100 feet (3.637,000 cubic yards).

(b) McVay's valuation of the royalty interest applied the following factors: A 25-cent royalty charge; an estimated production tonnage of 60,000 tons per year; a geographic market area within a radius of 50-55 miles from the dolomite deposit; a discount rate of 17 percent; and a 25-year life. On the basis of these factors, McVay appraised the value of the dolomite royalty interest as of November 18, 1971, at $195,000 and, as of January 4, 1977, at $290,000. This appraisal attributed no value to any oil or gas rights.

(c) McVay's estimate of the operator's interest, on the basis of the Port San Luis project, was computed as follows:

Operator's Interest Estimate:

* * * * *

Type of rock — Armor (A-10 and A-13)
Period of delivery — Projected 1977-78-79

Quantity:	A-13	202,872 tons
	A-10	12,600 tons
	Total	215,472 tons

Price per Ton Delivered based on Corps of Engineers 1975 Price Estimates.*

A-13: $17.40 (Riverside)
A-13 and A-10: $11.00

Truck cost per ton from subject	— $ 5.09
Production cost estimate per ton for subject	— $ 2.50
Royalty per ton	— $ 1.00

Operator's Interest Calculations:

Projected price per ton delivered	— $17.00
Less truck costs per ton from subject	— 5.09
Less royalty per ton	— 1.00
Less production costs per ton (blasting, sizing and loading)	— 2.50
Indicated Operator's interest per ton	— $ 8.41
215,472 tons at $8.41	= $1,812,120
Operator's interest estimate	= $1,812,000

* Since the Corps of Engineers price estimates were based on 1975 prices, the actual 1977 bid prices are expected to be materially higher.

(d) McVay's 1971 estimated valuation of the operator's interest on the basis of the Rincon project was:

Operator's Interest Estimate:

* * * * *

Type of Rock — Armor (A-12)
Period of Delivery — November, 1971 to February, 1972
Quantity — 25,000 tons
Price per ton delivered — $9.80
Truck Cost per ton — $5.80 (4¢ per mile @ 145 miles)
Subject Estimate Production Cost per ton — $1.50
Royalty per ton — 25¢

Operator's Interest Calculations:

Had the armor rock been available from the subject deposit, a competitive bid delivered of $9.00 per ton would be considered reasonable.

Projected price per ton delivered	$9.00
Less truck costs (75 mi at 4¢ mi)	3.00
Less royalty per ton	.25
Less production costs per ton (such as blasting, sizing and loading)	1.50
Indicated Operator's interest per ton	$4.25

25,000 tons at $4.25	= $106,250
Operator's interest estimate	= $106,000

(e) Plaintiff's hard rock quarry operator, William Schmidt, computed the value of the operator's interest as of the date of trial by a calculation of a proposed bid for the Port San Luis Obispo harbor project. This evaluation of the operator's interest was based on a calculation that

compared the cost of delivering armor stone to the Port San Luis project, using the Tract 83 deposits, in comparison to the cost if the armor stone were brought from the Riverside quarry. Schmidt computed that armor stone from the Tract 83 deposit could be delivered to the Port San Luis project at a cost of $11.50 per ton. Armor stone delivered to the project from the Riverside quarry was estimated to cost approximately $28.36. Schmidt compared the projected bid prices and computed total profit on 215,000 tons of armor stone, as follows:

1. From Riverside, FOB Avila	$28.36/Ton
2. Cost from Tract 83 to Avila	11.50/Ton
Advantage of Tract 83	16.86/Ton

Tract 83 can therefore bid at estimated price per ton of $25/Ton (in order to underbid Riverside's bid of $28.35) for following profit on 215,000 tons of derrick stone:

$2.00/Ton profit x 215,000 Tons (included in "Cost" bid of $11.50/Ton	$ 430,000
Additional profit which can still underbid Riverside ($25.00 bid less $11.50 cost) or $13.50/Ton x 215,000 Tons	2,902,500
Total Operator's Profit	$3,332,500
Plus $1.00/Ton royalty allocable to royalty approach	215,000
Total Profit on Port San Luis job on just the 215,000 Tons armor	$3,547,500

(f) Schmidt also projected the value of 320,000 tons of core stone as a byproduct of the production of derrick stone.

In this comparison, Schmidt related the costs of core stone from the Tract 83 deposits to the cost of core stone from Kaiser's Santa Margarita quarry. The comparison was:

	Kaiser at 28 miles	Tract 83 at 55 miles
Freight (PUC rate)	$3.00	$4.75
Blasting and sorting	1.00	–0–*
Loading	.50	.50
Royalty	1.00	1.00
Profit	2.00	1.00
BID	7.50	7.25
Armor (A-10 and 13) Stone 40% of each quarry shot at Tract 83	215,000 Ton	
Code (A-6 and below) 60% of each quarry shot at Tract 83	320,000 Ton	

* (Cost of blasting A-6 and below for the first 320,000 ton is included in the price for A-13 derrick [armor] stone computed on preceding exhibit.)

Value of 320,000 tons of core stone which is by-product (at no overhead) from production of derrick stone, using $7.25 bid (including $1.00/Ton profit and $1.00/Ton royalty shown above):

320,000 Tons core rock at $2.00/Ton for Additional Operator's Interest of ... $640,000.00

8. (a) In the determination of the separate value of the Tract 83 deposits, defendant's appraiser (Chapman) considered only values for riprap and aggregate uses. Potential uses for chemical dolomite, or for pharmaceutical or agricultural purposes, were not included in defendant's appraiser's valuation. Use as aggregate was limited to roadbase; the Tract 83 deposits were not considered for use in roadbed concrete.

(b) Demand for riprap and aggregate from the Tract 83 deposits was related to a consideration of supply available from production of eight active quarries in the San Luis Obispo-Santa Barbara-Ventura Counties, 12 inactive quarries in those counties, and 17 sites of potential riprap deposits containing either limestone or dolomite. Estimated reserves in these possible alternative sources of riprap were included in the analysis. Appraisal expert Chapman concluded that there was an adequate supply of all rock products in the counties of San Luis Obispo and Santa Barbara to handle any future demand that could arise. The trading area, based on transportation costs for riprap and aggregate, should be limited to the two counties of San Luis Obispo and Santa Barbara; the primary trading area for the Tract 83 deposits for riprap and aggregate was a 15-mile radius of the site.

(c) Defendant's expert (Chapman) made a transportation cost feasibility study, which rated the Tract 83 deposits with alternate rock sources on the basis of constructive transportation costs (not actual costs) for five projects. Four projects had been completed (Diablo Canyon, Rincon, Arco Island, and Lompoc sewer) and one project was planned (Port San Luis Obispo). Defendant's transportation cost feasibility study showed, for the four completed projects, that the Tract 83 deposits would have

— ranked No. 7 among nine competitive sources on the Diablo project;

— ranked No. 3 among four competitive sources on the Lompoc sewer project;

— ranked No. 6 among six competitive sources on the Rincon project; and

— ranked No. 6 among six competitive sources on the Arco Island project.

(d) Valuations by application of the income approach were determined by defendant's appraisal expert through three cash flow analyses. A value of $29,088 was derived on the basis of Chapman's original appraisal premise and included the following conditions:

> *** 25 year lease started March 1, 1976. $4,500 per year base royalty. All sizes rock quarried @ 0.3125/ Ton. Minimum of 14,400 tons must be quarried to reach base minimum. Lessee to pay taxes on mineral rights. It is assumed that minimum royalty is never exceeded.

A value of $33,000 was derived in a second cash flow analysis, based on an average annual demand of 10,346 tons per year, and a sporadic demand for riprap that caused the minimum royalty to be exceeded at 5-year intervals. Other conditions were: Owner negotiates with quarry operator a 25-year lease at 0.3125 per ton (all rock); minimum rent of $4,500 per year, discounted at 15 percent to present worth value. This model was based on a 100 percent capture of the riprap demand in the Lompoc area.

The third cash flow analysis produced a value of $24,000. In this model, although the quarry would remain open, it would be inactive between short-term lease contracts that were negotiated separately during the 25-year period. Demand was an average of 10,346 tons per year, with sporadic demand for riprap at 5-year intervals. Royalty rates for riprap increased over the 25-year period. Royalty was discounted at 18 percent because of the higher risks involved in an irregular cash flow. Royalty for riprap was $1 per ton in 1976, and was compounded at 5 percent annually. Royalty on aggregate was 25 cents per ton in 1976.

(e) Defendant's expert (Chapman) determined the fair market value of the entire fee of Tract 83 as of November

18, 1971, and as of March 1, 1976, on the basis of comparable sales. These values were as follows:

November 18, 1971	$307,000
March 1, 1976	$350,000

(f) The following table summarizes the various approaches made by defendant's appraisal expert to valuation of the mineral rights reserved on Tract 83:

Market Data Approach:

Indicates Value Range of $5,000 to $29,000

Income Approach:

1971 Value	$32,000
1976 Value	$38,000

Final Opinion of Value:

1971 Value:

Right to Extract Dolomite	$23,250
Right to Extract Oil & Gas	$ 8,750

1976 Value:

Right to Extract Dolomite	$29,250
Right to Extract Oil & Gas	$ 8,750

9. Defendants' geology experts also provided economic analyses of the value of the Tract 83 deposits. Bowen's analysis, based on a consideration that there would be 2 million tons of dolomite worth 2 cents a ton in place, valued the dolomite deposits at a total of $40,000, and provided an additional $10,000 for serpentine. No valuation was placed on rights to petroleum or related materials. In Bowen's analysis, the fair market value of the economically recoverable rock on Tract 83, thus, would not exceed $50,000. Merrill's analysis of the market value of the right to mine and remove the Tract 83 deposits utilized procedures in the assessor's handbook, "*Evaluation of Mines and Quarries*,"

published by the Assessment Standards Division, Property Tax Department, California State Board of Equalization, January 1973. This procedure placed the value on the right to extract and remove the rock, not a value based on the volume of the rock deposit, which Merrill had estimated to be 1,659,230 tons. On the basis of a demand for 10,000 tons per annum, at a royalty rate of 15 cents per ton, escalated at a rate of 2 cents per ton annually for 25 years, Merrill valued dolomite, limestone, and other quarryable products in the Tract 83 deposits, as of March 1, 1976, at $25,493. The value, when computed by this procedure, as of November 18, 1971, was $18,560.

10. The term dolomite, in popular usage, describes both pure mineral dolomite and a rock in which the mineral dolomite is the primary constituent. A rock composed of from 85 percent to 95 percent pure mineral dolomite in popular commercial usage would be classified as dolomite.

11. The Tract 83 deposits in dispute contain rock dolomite that is suitable for use as riprap, including the production of armor stone and for other construction uses, and mineral dolomite of sufficient purity for pharamaceutical, agricultural and other specialized secondary uses.

II. The following findings of fact are based on evidence presented at the January 1981 trial; they supplement the findings of fact in I. above.

12. Samples from Tract 83 tested by plaintiffs show that concrete aggregate made from Tract 83 rock would be stronger than concrete aggregate made with river gravel, and that less cement was required with Tract 83 rock to produce concrete aggregate of equal strength. Plaintiffs' tests disclosed no reactivity when the Tract 83 rock samples were mixed with cement.

13. (a) Defendant's geology expert (Bowen) believed the presence of Monterey shale made rock from Tract 83

unsuitable for concrete, and that a mixture of Monterey shale with the Tract 83 dolomite rock was unavoidable. Defendant's appraisal expert (McClung) assumed that Tract 83 would be suitable for use in concrete aggregate. No evidence shows affirmatively that Tract 83 rock would not be suitable for use in concrete aggregate.

(b) Plaintiffs' tests on Tract 83 samples and Missile City quarry samples indicate that the two deposits have substantially the same rock, both mineralogically and chemically. Missile City quarry rock was suitable for concrete and was used satisfactorily in construction at Vandenberg Air Force Base.

14. Plaintiffs' tests on Tract 83 samples show that the presence of quartz in the rock would not prevent its use for concrete aggregate. The presence of quartz is not deleterious for riprap use.

15. Cubic yards of dolomite can be converted into tonnage volumes by multiplying the cubic yardage by a factor related to the specific gravity of dolomite. On the average, dolomite weighs 2.3 tons per cubic yard. Plaintiffs' estimate of the total volume of the eastern and western deposits was 3,637,000 cubic yards at the 100 foot depth, which converts to 8,365,100 tons; the 5,456,000 cubic yards at the 150 foot depth converts to 12,548,800 tons.

16. A quarry on Tract 83 would present no serious mining problems. It would be simple in start-up, and there would be very little overburden to be removed. Waste could be disposed of on the site. Jack Foster testified that his mining plan for a Tract 83 quarry would use a benched quarry face, with 30 foot vertical faces and 6 foot horizontal benches between each vertical face.

17. Access to the Tract 83 quarry site would be by LaSalle Canyon Road from the deposit to the northern boundary of Vandenberg Air Force Base, a road distance

of aproximately 1.9 miles. The steepest part of the road, approximately 0.25 miles, has a grade of approximately 18 percent; on the remainder the grade is between 8 and 10 percent. Plaintiffs' quarry operator (Sanchez) estimated the LaSalle Canyon Road could be upgraded into a basic two lane road suitable for hauling rock at a cost in 1981 dollars of $10,440; a road with an all-weather surface could be provided at a cost in 1981 dollars of $27,840. Converted to November 1971 dollars, these estimates amount to $6,264 for basic grading and widening, and to $16,704 for an all weather surface.

18. There is a general shortage of high quality rock suitable for riprap in the Santa Maria area, and of high grade construction rock in Santa Barbara County. Broken concrete on occasion has been used as a substitute for hard rock riprap. The United States Soil Conservation Service during 1979 had the bank of the Santa Ynez River near Lompoc lined with gabions in lieu of riprap. Gabions are wire baskets, used for stream bank protection, into which smaller rocks are placed by hand.

19. Environmental concerns restrict the operation of existing quarries and hinder opening of new quarries in Santa Barbara County and San Luis Obispo County. Operations at the Sea Canyon quarry and the Morro Rock quarry were stopped after the 1969 floods because of environmental objections. The Ojai quarry was shut down for a year pending issuance of a conditional use permit from the City of Ventura.

20. (a) Plaintiffs' appraisal expert (Paschall) valued the leasehold interest for use of dolomite as riprap and concrete grade aggregate on the taking date at $4,221,000, plus a residual mineral right value of $498,000 for use of dolomite for agricultural purposes. This value was based on a capitalization of income methodology in which a

projected future income stream was realized over a 25-year period. Paschall estimated the total market demand for Tract 83 production over the 25-year period to be 4,237,884 tons for riprap and aggregate and 205,921 tons for agricultural uses. A 25-year period, beginning January 1972, was used as the productive life of Tract 83 for economic reasons, and was not related to actual volume of reserves available, because his residual appraisal technique used a capitalized income approach that capture virtually all of the value in the first 25 years.

(b) Paschall's valuation included the following calculations: per capita demand of the State of California for stone and concrete aggregate during the period 1967-71 was derived from a correlation of production with population; per capita demand was applied to estimated population growth in a designated market area to derive total demand for the market area; Tract 83 percentage capture of total market demand for each year 1972-96 was derived from a consideration of the capacity and transportation advantage of available competitors; Tract 83 production was equated with market share captured; annual net operating income from Tract 83 production was calculated from a basic price per ton of rock at the quarry in 1971 of $4 and a basic price per ton of $1.75 for aggregate, less a total operating expense of $0.90 per ton and a royalty of $0.25 per ton; fixed plant and mobile equipment were estimated at $879,000. The computation of total property value consisted of multiplying a given net operating income per year by its applicable production rate year by year and then multiplying the total net operating income per year by the relevant present worth factor for a 10.5 percent rate of return. This procedure produced a total property value of $5,100,000, from which is deducted $879,000 for plant and equipment, to give the final value of $4,221,000 for stone and aggregate.

(c) Paschall derived the average per capita demand for stone suitable for use as riprap of 2.06 tons by correlating California production in the years 1967-71 with State of California population, as follows:

Year	Tons of Stone Produced (1000s)	Population (1000s)	Tons per Capita
1967	37,186	18,588	2.00
1968	36,125	19,038	1.90
1969	38,033	19,499	1.95
1970	46,399	19,971	2.32
1971	43,615	20,256	2.15
			2.06 average

Paschall derived the average per capita demand for aggregate of 2.76 tons by multiplying statewide annual cement production by six and by correlating that tonnage with state population, as follows:

Year	Tons of Cement Produced	Tons of Aggregate Needed at 6:1 Mix (1000s)	Population (1000s)	Tons per Capita
1967	37,186	47,406	18,588	2.55
1968	36,125	53,784	19,038	2.82
1969	38,033	57,078	19,499	2.93
1970	46,399	55,824	19,971	2.80
1971	43,615	54,702	20,256	2.70
				2.76 average

(d) Geographic markets for concrete grade aggregate and riprap for Tract 83 dolomite were defined as follows:

(1) Santa Barbara's "North County" which consists of all of the county north of the Santa Ynez mountains, and

(2) other adjacent areas that would have been logical prospects for the use of Tract 83's mineral commodity.

The North County included two sub-markets:

(i) "Lompoc Valley" (City of Lompoc, Vandenberg Village, Vandenberg Air Force Base, and Mission Hills) and

(ii) other North County (Buellton-Solvang-Santa Ynez, and Santa Maria and all other areas north of the Santa Ynez mountains).

(e) Paschall obtained population figures for Lompoc Valley as of 1979 and a population figure for the total North County as of 1970. These were adjusted to obtain an estimate for January 1972, which was then escalated to reflect an annual 2.42 percentage rate of increase exhibited by the entire State from 1960 to 1970. This procedure produced a population for Lompoc Valley and for North County for each year 1972-96. The Lompoc Valley population was projected to increase from 41,560 in 1972 to 73,780 in 1996; North County population was projected to increase from 119,480 in 1972 to 212,090 in 1996. Application of the 2.76 average tons per capita for aggregate and 2.06 average tons per capita for stone produced a total demand estimate for each year for "Lompoc Valley" and for "Other North County" markets, as follows:

	Aggregate (Tons)		Stone (Tons)	
	Lompoc Valley	North County except Lompoc Valley	Lompoc Valley	North County except Lompoc Valley
1972	114,750	215,055	85,610	160,690
1973	117,490	220,250	87,490	164,590
1974	120,310	225,600	89,800	168,380
1975	123,230	231,040	91,980	172,440
1976	126,210	236,650	94,200	176,630
1977	129,280	242,350	96,490	180,890
1978	132,400	248,230	98,820	185,270
1979	135,630	254,220	101,230	189,750

	Aggregate (Tons)		Stone (Tons)	
	Lompoc Valley	North County except Lompoc Valley	Lompoc Valley	North County except Lompoc Valley
1980	138,880	260,410	103,660	194,360
1981	142,250	266,700	106,170	199,060
1982	145,700	273,130	108,750	203,850
1983	149,200	279,790	111,360	208,830
1984	152,820	286,540	114,060	213,870
1985	156,520	293,470	116,820	219,040
1986	160,300	300,590	119,640	224,360
1987	164,190	307,850	122,550	229,770
1988	166,680	316,790	125,520	235,330
1989	172,220	322,920	128,540	241,020
1990	176,360	330,790	131,630	246,880
1991	180,670	338,730	134,850	252,820
1992	185,060	346,930	138,120	258,940
1993	189,530	355,320	141,460	265,200
1994	194,110	363,930	144,880	271,630
1995	198,800	372,740	148,380	278,200
1996	203,630	386,570	151,990	284,910

(f) Paschall estimated total demand in tons for the years 1972-96 as follows:

	Total Concrete Aggregate	Total Stone	Total Non-Concrete Aggregate
Lompoc Valley	3,876,137	2,894,000	5,486,654
Other North County	7,267,374	5,426,710	10,286,669
Totals (Tons)	11,143,511	8,320,710	15,773,323

(g) Paschall estimated that Tract 83 production could capture the following shares in the respective markets:

	Stone (Riprap)	Aggregate
Lompoc Valley	50%	30%
Other North County	20%	
Outside North County	50% of Other North County	

(h) Demand for Tract 83 production, based on Paschall's market shares, for the 1972-96 period was:

Total Demand for Tract 83 Production
(Tons)

Aggregate	Stone (Riprap)			Total Tract 83
Lompoc Valley	Lompoc Valley	Other No. County	Outside No. County	
(30%)	(50%)	(20%)	(50% of other No. County)	
1,162,871	1,447,000	1,085,342	542,671	4,237,884

(i) Paschall derived prices for riprap stone from statistical data, and calculated a basic price per ton for rock at the quarry in 1971 at approximately $4. On the basis of a "transportation advantage" enjoyed by Tract 83 over competing quarries he calculated prices at the quarry site for Tract 83 production in the following markets for stone as follows:

Lompoc Valley	$6.25
Other North County	$5.75
Outside North County	$5.75

The price for Tract 83 aggregate at the quarry was estimated to be $1.75.

(j) Paschall's computation of net operating income per ton for Tract 83 production was:

Area and Product	Sale Price	Oper. Expens.	Royalty	NOI
Lompoc Valley Aggregate	$1.75	$0.90	$0.25	$0.60
Lompoc Valley rock	6.25	0.90	0.25	5.10
Other No. County rock	5.75	0.90	0.25	4.60
Outside No. County rock	5.75	0.90	0.25	4.60

(k) Paschall calculated the total net income from Tract 83 production annually for 1972-96, and obtained a present worth value by application of factors for a 10.5 percent rate of return:

Value of Tract 83 Net Operating Income

	Total Net Operating Income	Present Worth Factors at 10.5%	Present Worth of Net Operating Income
1972	$460,703	.951	$438,128
1973	471,382	.861	405,860
1974	483,011	.779	376,265
1975	494,513	.705	348,632
1976	506,363	.638	323,060
1977	518,948	.577	299,433
1978	531,495	.522	277,440
1979	544,404	.473	257,503
1980	557,537	.428	238,626
1981	571,041	.387	220,993
1982	584,851	.351	205,283
1983	599,010	.318	190,485
1984	613,501	.288	176,688
1985	628,340	.260	163,368
1986	643,552	.236	151,878
1987	659,138	.213	140,396
1988	674,834	.194	130,918
1989	691,384	.175	120,992
1990	708,096	.158	111,879
1991	725,280	.144	104,440
1992	742,854	.130	96,571
1993	760,814	.118	89,776
1994	778,819	.107	83,333
1995	798,069	.096	76,615
1996	817,402	.088	71,931
			5,100,493
		Rounded to	$5,100,000

(1) Paschall's estimate of the total cost of fixed plant and equipment for operations at Tract 83 was:

Fixed Plant		$250,000
Equipment:		
Drilling Rig, et al.	98,000	
Power Shovel	154,000	
Heavy-Duty Loader	127,000	
One 35-ton Truck	42,000	
D-8 Cat with Blade	35,000	
		456,000
Total Plant and Equipment		$706,000

This estimate was revised to provide for the addition of a 20-ton crane ($118,000), small vehicles and miscellaneous tools ($43,000) and the inclusion of costs for repairing the road $12,000), a total addition of $173,000.

(m) Paschall's final residual mineral right value for stone and aggregate uses ($4,221,000) was obtained by deducting from the present value of the net operating income $5,100,000), the revised estimate for the value of the plant and equipment ($879,000).

21. In posttrial briefing, plaintiff's final computation of value of the property taken is as follows:

Gross value of the dolomite, utilizing the capitalized income approach to value, for riprap and aggregate uses	$5,100,000
LESS cost of crushing plant and other equipment	– 877,000
SUBTOTAL	$4,223,000
LESS 1971 cost of improving LaSalle Canyon Road ($6,264 + $16,704)	– 22,968
SUBTOTAL for riprap and aggregate	$4,200,032

PLUS:	
Royalty interest value	$ 331,500
Agricultural use value	498,000
TOTAL VALUE of dolomite, in place, as of the November 18, 1971, date of taking	$5,029,532

22. (a) Defendant's mining and appraisal expert (McClung) considered the Tract 83 deposits to be suitable only for use as common variety stone. Other uses could be obtained only by selective mining, which could not be justified because of expense and the size of the deposits. He calculated the fair market value by multiplying estimated reserves at Tract 83 by $0.015 per ton. The value factor of 1.5 cents was based upon five sales and one condemnation sale of rock deposits in California between 1962 and 1977 at prices between 0.15 cents and 6.0 cents per ton. McClung's comparable sales, with prices indexed to 1971 were:

Sale No.	Tons Reserve, Category	Date of Sale	Price (¢)/Ton Total Reserve	
			Date of Sale	Indexed to 1971
1.	10 MM Inferred	1972	1.86	1.6
2.	200 MM Inferred	1971	0.15	0.15
3.	12 MM Inferred	1962	2.12	2.59
4.	10 MM Inferred & Indicated	1972	6.0*	5.81
5.	24 MM Inferred	1973	1.0	0.94
6.	100 MM Inferred	1976	1.4	0.89

* Operating plant with kiln, estimated to represent approximately one third of selling price, included in price/ton total reserve.

(b) Other data relative to these sales compiled by McClung is summarized in the following table:

Comparable Sales Data

Description	Sale No. 1	Sale No. 2	Sale No. 3	Sale No. 4	Sale No. 5	Sale No. 6*
Tons Reserves (MM):						
Limestone	10	200	12	10	24	10
Dolomite						
Mining Method	Quarry & Mine	Quarry	Quarry	Quarry & Mine	Quarry	Quarry
In Production	No	No	No	Yes	Yes	Yes
Selective Mining Required	Yes	No	Yes	Yes	Yes	
Rail & Road	Good	Good	Good	Good	Good	
Power & Water At Site	No	No	No	Yes	Yes	
Services & Labor	Distant	Nearby	Nearby	Good	Nearby	
Acreage	280	1100	1592	350	208	144
Date of Sale	1972	1971	1962	1972	1973	1976
Price/Ton Total Reserves	1.86¢	0.15¢	2.12¢	6.0¢**	1.0¢	1.4¢

* Condemnation Appraisal.

** Plant included in sale.

NOTE: All sales in California.

(c) McClung considered $0.015 per ton value for total reserves of dolomite in place to be the more accurate measure of value, but conceded that $0.02 per ton could be justified. McCung's valuations varied with changes in estimates of total recoverable tonnages available. Estimates of the quantity of dolomite on Tract 83 were considered to be inadequate bases for firm conclusions. McCung classified the reserves as "indicated" or "inferred" under U.S. Bureau of Mine definitions. Because the worth of the deposit was relatively small, McClung stated its value would not be greately affected by differences in estimated quantities and additional exploratory work would not be warranted. McClung's values were as follows:

Date	Estimated Reserves (Tons)	Price Per Ton	Value
May 28, 1980	8,400,000 (plaintiffs' estimate)	$0.015	$126,000
Aug. 26, 1980	1,800,000 (personal investigation)	$0.015	$ 27,000
Jan. 15 & 20, 1981	2,650,000 (Dibley & Merrill estimates)	$0.015	$ 39,750 $40,000 rounded)
		$0.02	$ 53,000

DISPOSITION

Legal standards that apply to a determination of just compensation for taking the Tract 83 deposits are well established. These standards are not concerned with the commercial value of dolomite generally as a mineral; they are concerned solely with the monetary equivalent of the specific property that plaintiffs' held in Tract 83 on November 18, 1971, and that was taken on that date.

The fifth amendment provides that private property shall not be taken for public use without just compensation. The guiding principle is to reimburse the owner for the property that was taken, and just compensation means the full monetary equivalent of that property. The owner is to be put in the same position, from a monetary standpoint, as he would have been without the taking; he is to be made whole, but he is not entitled to more.[4] The value of the property taken is not the value to the owner for his particular purposes, and the owner does not necessarily receive compensation for all the value derived from the property. The special value of the property to the owner arising from its adaptability to a particular use is not compensated, nor is the value to the Government for some special use.[5]

The burden of establishing the value of the property taken rests upon the claimant.[6] As a general rule, there is no compensation for frustrated contracts or for loss of future income. The sovereign must pay only for what it takes, not for opportunities the owner loses.[7]

The essential question is always what has the owner lost, with the owner's indemnity measured in different ways dependent on the circumstances of the case. Just compensation invokes the equitable powers of the court and there is wide

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[4]*United States v. Reynolds*, 397 U.S. 14, 15-16 (1970); *United States* v. *Virginia Elec. & Power Co.*, 365 U.S. 624, 633 (1961); *Olsen* v. *United States*, 292 U.S. 246, 254-55 (1934).

[5]*United States* v. *565.54 Acres of Land*, 441 U.S. 506, 511 (1979); *United States* v. *Petty Motor Co.*, 327 U.S. 372, 377 (1946).

[6]*United States* v. *145.30 Acres of Land*, 385 F. Supp. 699, 702 (W.D. La. 1974), *aff'd*, 524 F.2d 1231 (5th Cir. 1975); *United States* v. *Glanat Realty Corp.*, 276 F.2d 264, 266 (2d Cir. 1960).

[7]*United States* v. *General Motors Corp.*, 323 U.S. 373, 379 (1945); *United States ex rel. TVA* v. *Powelson*, 319 U.S. 266, 281-82 (1943); *Klein* v. *United States*, 179 Ct. Cl. 910, 916, 375 F.2d 825, 829 (1967), *cert. denied*, 389 U.S. 1037 (1968). *See generally*, 4 Nichols, Eminent Domain § 13.33 (3d ed. 1973).

latitude of judicial discretion to include or exclude particular elements of damage.[8] Although there is wide latitude in selection of a method of valuation, the method selected cannot be so removed from economic reality that it is mere speculation or conjecture. The Supreme Court standard that requires valuation to be based on events that are reasonably probable is stated thus:[9]

> Elements affecting value that depend upon events or combinations of occurrences which, while within the realm of possibility, are not fairly shown to be reasonably probable, should be excluded from consideration, for that would be to allow mere speculation and conjecture to become a guide for the ascertainment of value — a thing to be condemned in business transactions as well as in judicial ascertainment of truth.

In most cases the question of just compensation can be answered by the ascertainment of market value — what a willing buyer would pay in cash to a willing seller. The term "fair market value" denotes what a purchaser in fair market conditions would have given, that is — "market value fairly determined."[10] Plintiffs emphasize that a definition of "fair market value," adapted to the peculiarities of mineral properties, would provide:

> . . . Fair market value is what a willing and informed buyer of mining properties, under no compulsion to buy, will pay, and what a willing and *informed mining owner*, under no compulsion to sell, will accept for the property, after fair and voluntary dealing, and taking into account all of those factors which such willing and

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[8]*A. G. Davis Ice Co.* v. *United States*, 362 F.2d 934 (5th Cir. 1966); *United States* v. *Lee*, 360 F.2d 449, 452 (5th Cir. 1966); *Sill Corp.* v. *United States*, 343 F.2d 411, 416 (10th Cir. 1965).

[9]*Olsen* v. *United States*, *supra* note 4, 292 U.S. at 257.

[10]*United States* v. *Miller*, 317 U.S. 369, 374 (1943).

well informed persons would consider regarding the property in light of the customs of the industry. (Emphasis added.)[11]

Fair market value is not an absolute standard, nor is it the exclusive method of valuation.[12] Where comparable sales data is lacking, resort may be had to the best available data which, even though somewhat uncertain, is sufficient to produce a value on a reasonably informed basis.[13]

The mere physical presence of a mineral on land is not enough to establish a right to just compensation; there must be a showing of a market which the mineral from that land reasonably could supply.[14] Computation of value by a process of multiplying an assumed tonnage by a unit price frequently is rejected as too speculative a procedure.[15] There generally is lacking any evidence that an informed buyer would pay such a price. In appropriate circumstances, nonetheless, this method of computation is appropriate and may be used to fix just compensation.[16]

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[11]Campbell, Jr. "Condemnation of Mining Properties – Related Aspects of Just Compensation," 15 *Rocky Mountain Mineral Law Institute*, 305, 355 (1969).

[12]*United States* v. *Virginia Elec. & Power Co., supra* note 4, 365 U.S. at 633.

[13]*United States* v. *Miller, supra* note 10, 317 U.S. at 374-75.

[14]*United States* v. *1,291.83 Acres of Land*, 411 F.2d 1081, 1084-85 (6th Cir. 1969); *Hembree* v. *United States*, 347 F.2d 109, 111 (8th Cir. 1965).

[15]*United States* v. *Sowards*, 370 F.2d 87, 90 (10th Cir. 1966); *United States* v. *Whitehurst*, 337 F.2d 765, 771-72 (4th Cir. 1964).

[16]*United States* v. *1,629.6 Acres of Land*, 360 F. Supp. 147 (D. Del. 1973), *aff'd in part, rev'd in part*, 503 F.2d 764 (3rd Cir. 1974). *United States* v. *237,500 Acres of Land*, 236 F. Supp. 44 (S.D. Cal. 1964), *aff'd sub nom., United States* v. *American Pumice Co.*, 404 F.2d 336 (9th Cir. 1968).

Evidence of value is largely a matter of opinion, and some speculation is inherent in the ascertainment of value of underground resources, such as minerals, oil, or gas. Even in relatively simple cases, assessment of market value involves the use of assumptions, and it is unlikely that the appraisal will measure exactly the true value.[17] The United States Court of Claims has recognized the necessity to permit speculation.[18]

> The fact, however, that a valuation reached has in it baffling elements of speculation and surmise does not mean that it should not be employed. One guess may be better than another guess, since not all guesses have in them the same element of intelligence. The realization that a considerable amount of conjecture is involved should not paralyze the function of deciding, but it should induce humility. Dogmatism is clearly out of order in a modern valuation case.

A number of techniques have been employed to arrive at a monetary equivalent to the theoretical fair market value. The traditional and most frequently employed technique, the "market data" or "comparable sales" approach uses sales and purchases of other properties that reasonably resemble the subject property with respect to time, place and circumstance. Other techniques include the capitalization of income approach (sometimes referred to as "discounted cash flow" or the "present worth of future income"), which relates earnings that reasonably could be expected to be derived from the property, discounted for risks and other variables, to arrive at a present value; and the cost

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[17] *United States* v. *Miller*, *supra* note 10, 317 U.S. at 374; *United States* v. *Silver Queen Mining Co.*, 285 F.2d 506, 510 (10th Cir. 1960).

[18] *Cities Service Gas Co.* v. *United States*, 217 Ct. Cl. 590, 597, 580 F.2d 433, 438 (1978).

approach, which uses depreciated replacement cost as the value of the asset.

The cost approach was not used by either party in this case. Defendant used both the comparable sales approach and modifications of the capitalization of income approach in appraisals by its experts. Plaintiffs found no sales of quarry properties which were adequate to use in comparisons for valuation purposes with the Tract 83 properties: plaintiffs accordingly submitted no fair market value as determined by what a willing buyer would pay in cash to a willing seller in a comparable sale. Plaintiffs' valuations are based upon variations of the capitalization of income approach.

Plaintiffs emphasize that the comparable sales approach has limitations that render it unsatisfactory for appraisal of mining properties. The most important limitation is the requirement that the properties in fact must be comparable for the technique to be reliable. Comparability of real estate sales involves such factors as time of transaction, location of the property, quantity and quality of the property sold, nature of the sale, the primary interests of the parties, as well as other factors peculiar to a particular transaction. There are few sales of mining properties, comparative data is limited, and since each mining property is unique as to quality, size, location, accessibility, ability to be mined, and access to available market, it is exceedingly difficult to isolate sales that accurately reflect a substitute for the property being appraised. On the basis of such differences, plaintiffs point to infirmities in the sales identified by defendant's experts that render the sales subject to valid criticism as lacking the traditional indicia of comparability.

Defendant's appraisal expert Chapman utilized sales of four actual or potential quarry sites for comparative pur-

poses, one of which was the May 2, 1972, sale of the entire mineral interest in the 876.26 acres on Tract 83 to plaintiffs for $5,000. Selling prices in the other comparisons were: Sale No. 1 — $22,500 for 36.15 acres, sold on April 25, 1975; Sale No. 2 — $29,000 for 200 acres sold December 20, 1973; and Sale No. 3 — $25,000 for 119 acres sold on March 2, 1973.[19]

Plaintiffs contend Chapman's sales are not comparable: because the transactions did not involve purchases of land for quarry purposes; because parts of the mineral reservations had been retained by prior granters; because the acreages specified by Chapman were inaccurate in that the sale was evaluated on the basis of extracting a portion of the land sold and applying a factor to that portion; or because it was unlikely that a conditional use permit could be obtained. Plaintiffs' contentions have merit; Chapman's Sales Nos. 1-3 are of questionable comparability.

Defendant acknowledges the difficulties involved in defining a market for mineral properties and the effects of a paucity of sales for appraisal purposes. Defendant, however, asserts the comparative sales data available in the record provides information that reasonably may be recognized and used as a basis for expert opinion. Elements of sales of quite distant properties, even those with different mineral content, may be comparable in an economic or market sense when due allowance is made for variables.[20] The requirement to show similarity is not as rigorous when

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[19]Defendant's geology expert Bowen testified on real estate sales which he considered to be comparable. Plaintiffs established that these sales lacked comparability because of remoteness in time, from 17 to 27 years, distances, or because the mineral deposits were not identified as elements in the transaction.

[20]*United States* v. *Toronto, Hamilton & Buffalo Navigation Co.*, 338 U.S. 396, 402 (1949); *United States* v. *American Pumice Co.*, *supra* note 16, 404 F.2d at 337.

the sales data becomes part of the foundation for testimony of an expert subject to cross examination as it is when the sales of other property are offered as substantive proof of value.[21] Comparative sales data used by defendant's expert witnesses, Bowen, Chapman, and McClung, although deficient in some particulars, does not warrant rejection of their opinions, as plaintiffs contend.

Plaintiffs contend the appraisal profession prefers the capitalization of income approach for valuation of mineral properties and that method is the primary means employed in the mining industry itself. Historically, the capitalization of income approach to value has been suspect, primarily because "just compensation" for property taken by the Government does not include compensation for the loss of prospective or anticipated business opportunities. Direct capitalization of net income is an appropriate method only when actual income from the property can be established in a continuing on-going business. It is of little value where the realization of an opportunity for income was not even begun as of the date of taking.[22]

The capitalization of income approach has become acceptable in recognition of situations where income producing potential is a key element for both buyer and seller in many negotiations in arriving at a fair price. As to mining properties, plaintiffs contend that the calculation of future income from the extraction of the mineral provides a more accurate measure of value than so-called comparable sales data because mineral deposits inherently must be quite dissimilar.

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[21] *United States* v. *429.59 Acres of Land*, 612 F 2d 459, 462 (9th Cir. 1980).

[22] *United States* v. *15.00 Acres of Land*, 468 F. Supp. 310, 314 (E.D. Ark. 1979).

Plaintiffs emphasize the capitalization of income approach to compute value of a mineral property does not compensate a property owner for lost business profits — it is said to measure the compensation for recognized interests in real property — the royalty interest or the operator's interest. A royalty interest is an interest of a passive land owner-lessor or of an inactive lessee; an operator's interest is the interest of a person with the right, the capital, and the ability to develop, produce and sell the mineral. These interests are property rights that can be bought and sold. Both Federal and state courts recognize the royalty interest and the operator's interest as component parts of the whole mineral estate.[23]

Although a computation by the capitalilzation of income approach involves multiplication of tonnage volumes by net income per ton, the operator's interest in a mineral estate has a different function than as a measure of an operator's profit. The operator's interest is a separate right to produce and sell the mineral. When bought and sold on the open market, it commands a price that represents a present value, measured by an estimate of what can be earned by exercise of the right. The value placed on an operator's interest is not compensation for the consequential damages of lost future business profits; it is compensation for the taking of an interest in real property.

In a particular case, each approach to valuation appropriately can be useful as a tool to arrive at an amount equivalent to the hypothetical fair market value, when the buyer and seller each is fully informed and acts in the absence of constraints. In this case, the facts that delineate exactly the property interest plaintiffs had on November 18, 1971, and the information available in the record

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[23] *United States* v. *237,500 Acres of Land*, *supra* note 16, 236 F. Supp. at 50; *United States* v. *180.37 Acres of Land*, 254 F. Supp. 678 (W.D. Va. 1966).

on the facts that define the quality and quantity of the mineral taken, establish the approach to valuation that should be used.

When plaintiffs' property was taken on November 18, 1971, plaintiffs were lessees with an operator's interest in the "right to extract and remove and take from the premises all riprap rock." The lease, for a term of 5 years ending May 1, 1976, had an option to renew for an additional 5-year period, through May 31, 1981. On November 18, 1971, defendant took plaintiffs' operating interest in the leasehold. On that date, plaintiffs' predecessors-in-interest had the royalty interest in the lease during its term and the reversion at its expiration. Plaintiffs' predecessors-in-interest also owned the reserved interest in all other minerals in Tract 83. Plaintiffs' May 1972 purchase acquired the balance of the reserved mineral fee and the reversion of the lease after 10 years and merged the operating interest with the royalty interest in the right to extract and remove riprap. What is to be valued, therefore, is the amount plaintiffs are entitled to receive as just compensation for the operator's interest in a 10-year lease with the right to extract dolomite for use as riprap from the Tract 83 deposits.

The principal elements that determine the value of plaintiffs' operator's interest in the leasehold — the quantity of dolomite and its quality as related to use — are uncertain. Plaintiffs' experts estimate that the Tract 83 deposits would contain 3,637,000 cubic yards (8,365,100 tons) of dolomite if mined to a 100′ depth, and 5,456,000 cubic yards (12,548,800 tons) of dolomite when mined to the 150′ depth.[24]

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[24]One of plaintiffs' appraisal experts (McVay) estimated there would be 13,094,000 tons recovered from the 3,637,000 cubic yards when the deposits were mined to a depth of 100′; he used a factor of 3.6 for tons of dolomite per cubic yard. Plaintiffs' appraisal expert at the second trial (Paschall) used a factor of 2.3.

Plaintiffs' final expert (Paschall) estimated that the total production from the Tract 83 deposits that could be sold during the 25-year period from 1972-96 would amount to 4,237,884 tons, of which 1,162,871 tons would be aggregate and 3,075,013 tons would be riprap. Defendant's experts variously estimated that the Tract 83 deposits contained no more than 2 million tons of limestone or dolomite (Bowen); or that the deposits contained approximately 1,659,230 tons of dolomite suitable for production of medium-size riprap (Merrill); or that the deposits could contain from 1,800,000 to 2,650,000 tons of mixed rock suitable for use as common variety stone (McClung).

On the basis of these estimates, it is concluded that it is probable that at least 1.5 to 2 million tons of dolomite suitable for riprap purposes would be able to be recovered from the Tract 83 deposits. This conclusion, however, must be tempered by recognition that the misfortune experienced by the Missile City quarry could occur at Tract 83.

The Missile City Corporation was formed about 1959 to extract dolomite from a deposit near Lompoc, California. Geology experts for Missile City were of the opinion there was a "mountain" of dolomite with reserves that approximated 600,000,000 tons that assured a virtually inexhaustible supply. The Corporation obtained a 50-year lease, constructed a one million dollar processing plant, and began production in 1960. After 3 years, and production of 1,500,000 tons of dolomite, the deposit was exhausted. The Missile City quarry terminated operations with losses of about $3 million.

The Missile City experience hovers as a specter over projected Tract 83 operations. Expert opinion by respectable geologists about the reserves was shown to be invalid. The dolomite deposit that looked exceptionally promising was a deposit of limited volume. Missile City quarry's loca-

tion, close to the Tract 83 deposits, and involving similar formations, increases the possibility that the Tract 83 deposits also could experience similar early exhaustion.

The quality of the Tract 83 deposits for commercial exploitation also is subject to wide divergence in the experts' opinions, with resultant uncertainty in the record. The Tract 83 deposits, from the standpoint of their chemical composition, contain rock dolomite that is suitable for production of riprap and armor stone, and for other uses in the construction industry. The deposits also contain mineral dolomite of sufficient purity for pharmaceutical, agricultural, and other specialized secondary uses. These chemical qualities were the basis for the conclusion that the dolomite was a reserved mineral.

The value of the deposits, however, is dependent upon many factors in addition to their chemical composition. Availability of markets for dolomite from Tract 83, in large measure, is dependent on transportation costs. Other factors that affect commercial exploitation include the technical ability to extract the material in the sizes and volumes required for various specific uses, and the extent to which the expense of selective extraction techniques would be required, and could be justified, in order to obtain a given volume with a high degree of purity.

The parties agree that the Tract 83 deposits would be suitable for use as riprap, and other construction uses, and that some armor or derrick stone probably could be produced. The parties differ on the ability of the Tract 83 deposits to satisfy market demands for any such uses.

Plaintiffs' quarry expert (Schmidt) estimated that the Tract 83 dolomite deposits could be quarried to yield about 40 percent derrick stone and 60 percent stone of riprap size. Plaintiffs' appraisal expert (Paschall) considered the Tract

83 deposits to be able to produce 70 percent riprap, and 30 percent concrete grade aggregate. He also found that the Tract 83 deposits over a 25-year period could supply 205,921 tons of dolomite for agricultural use.

Defendant's expert (Bowen), on the other hand, estimated that the Tract 83 deposits would yield 40-50 percent riprap of all sizes but under 5 percent of 10-20 ton derrick stone. The geologist for the Los Angeles District, Corps of Engineers, questioned whether the deposit could produce substantial quantities of large size derrick stone because of close spaced joints caused by movement along the nearby production of riprap in the 4″ to 12″ size. Defendant's expert (Merrill) testified that the faulting and fracturing in the deposits made him doubt that any large size derrick stone could be produced, but that the deposits could be suitable for the production of medium size riprap.

Defendant's expert (Bowen) believed that the presence of Monterey shale made rock from Tract 13 unsuitable for concrete, and that a mixture of Monterey shale with Tract 83 dolomite rock was unavoidable. Defendant's expert (McClung), however, assumed that Tract 83 would be suitable for use in concrete aggregate, but considered the Tract 83 deposits to be such a mixture of dolomite and other rock that it could be suitable only for use as common variety construction stone.

The record in this case justifies the conclusion that the value of the Tract 83 deposits primarily is for production of riprap, including derrick stone, and stone for various construction purposes, including use as aggregate in concrete. The record, however, does not support a conclusion that the Tract 83 deposits have any value for production of dolomite commercially for agricultural or pharmaceutical purposes, or for any of dolomite's secondary usages.

Uncertainties in the record as to the quantity and quality of dolomite available for use as riprap were compounded by the experts' differing appraisal techniques. This resulted in extreme differences among the experts in the monetary value of the property taken. Plaintiffs' experts, in their application of the capitalization of income approach, produced calculations where final values differed substantially because of variables in the factors used. The elements of a calculation of projected future income can involve speculation, optimistic assumptions and uncontrollable variables. Although the calculation may be internally consistent, the capitalization of income approach frequently does not produce reasonably persuasive evidence of value.

In the first trial, plaintiffs' expert McVay by the capitalization of projected royalty income, valued the royalty interest in plaintiffs' lease as of November 18, 1971, at $195,000. McVay computed a value of the operator's interest at $106,000, on the basis of an estimate of sales that could have been made on the Rincon project, and, on the basis of estimated sales for the Port San Luis project, at $1,812,000. Plaintiffs' hard rock quarry operator (Schmidt) computed a value of the operator's interest as of the date of trial (1977) by a calculation of estimated income from a bid for the Port San Luis project. This calculation produced a total operator's interest of $3,332,500, and when $215,000 was added for the royalty interest, resulted in a total profit of $3,547,500 on 215,000 tons of armor stone. Schmidt also projected profits from the sale of 320,000 tons of core stone produced as a by-product of the armor stone. This calculation increased the value of the operator's interest by $640,000, and a total value for the operator's interest of $4,187,500. Schmidt did not apply a discount factor to compute the present value of the operator's interest.

The deficiencies in Schmidt's and McVay's income capitalization computations were reviewed in detail in the October 18, 1978, opinion, and their values were rejected as "blue sky speculation." The opinion concluded:

> There are serious defects in plaintiffs' computations of the royalty interest and the operator's interest. Factors utilized by McVay and Schmidt in their computations rest upon speculative assumptions, and as a result, their computations, although internally consistent, produce results which could not reasonably be expected in the factual context that apply to quarry operations for the production of riprap in southern California. This failure to anchor assumptions to information corroborated by demonstrable facts renders the computations mathematical exercises unrelated to reality.

Deficiencies in the experts' calculations included: failure to make allowance for production from competitive quarries; an assumption that plaintiffs could successfully conduct quarry operations on a scale to capture profitably 60,000 tons of the projected annual demand for riprap; failure to include in the calculations an analysis of start-up costs, including capital investment in machinery and transportation equipment, and assembly of qualified personnel; failure to include costs to improve the LaSalle Canyon Road for use by heavy truck traffic; failure to consider costs required by the necessity to coordinate the quarry operations with operations at Vandenberg Air Force Base; and a lack of justification for transportation costs utilized in the calculations.

The October 18, 1978, opinion, in a comparison of the qualifications of the experts called by the parties, noted that plaintiffs' geologists primarily were academically oriented scientists and that defendant's geologists, in con-

trast, primarily were business oriented with more extensive operational experience. Plaintiffs' real estate appraisal expert (McVay) was found not to be as experienced as defendant's (Chapman). The opinion concluded that the methodology employed by Chapman was sound, and that defendant's valuation of projected income flow more nearly accorded with accepted valuation standards. The opinion accorded substantially greater weight to Chapman's opinion as to the value of the right to extract dolomite at the Tract 83 deposits.

Chapman prepared estimates of just compensation based on the present value of future income anticipated to be derived from operation of a quarry on the Tract 83 deposits. The Tract 83 deposits were considered available only for production of riprap and aggregate. The analysis of the potential demand for stone produced at the Tract 83 deposits postulated an intermittent demand for riprap of 25,000 tons at 5-year intervals, and a demand for aggregate at 13,500 tons annually. Chapman's income approach valuations took into consideration supplies available in competition to the Tract 83 deposits, and included a transportation feasibility study that compared transportation costs from competitive rock sources.

In his computation of valuations on an income approach, Chapman constructed three cash flow models. The original appraisal model projected a 25-year lease which paid the lessor a minimum base royalty of $4,500 per year. The annual income, $4,500 discounted at 15 percent over the term of the lease, resulted in a value of $29,088.

Chapman's Model No. 2 projected an average annual demand for all rock at 10,346 tons per year, a sporadic demand for riprap at 5-year intervals, and a 25-year lease. Discounted at 15 percent, the cash flow in this model produced a valuation of $32,945, which rounded to $33,000.

In Model No. 3, although the quarry remained open, it was inactive between short-term lease contracts that were negotiated separately during the 25-year period. Demand was projected at an annual average of 10,346 tons for all rock with a sporadic demand for riprap at 5-year intervals. This model produced a valuation of $23,971, which rounded to $24,000.

Chapman's valuation on the basis of comparable sales of the mineral rights reserved on Tract 83 ranged from $5,000 to $29,000. His final opinion of value as of November 18, 1971, allocated $23,250 to the right to extract dolomite.

The October 18, 1978, opinion also found deficiencies in the analyses of defendant's expert. Chapman postulated that inactive quarries would reopen and be a competitive supply for riprap to a greater degree than probably would be able to be realized. There was a failure to consider that environmental constraints on quarry operations would impede or prevent some reopenings. Another deficiency was Chapman's analysis of the market area in which the Tract 83 stone could be competitive. It was too restricted, particularly with respect to the market for armor stone.

At the second trial, plaintiffs through testimony and documentary evidence sought to correct deficiencies in the valuations of its experts which had been noted in the October 18, 1978, opinion. Plaintiffs presented the report and testimony of Robert H. Paschall, an expert witness with superior qualifications.[25] His report and testimony is the foundation for plaintiffs' final valuation of $5,029,532. Plaintiffs' other witnesses provided specific facts which Paschall utilized.

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[25]Robert H. Paschall, a professional geologist as well as a professional appraiser, was the most senior evaluation geologist to testify. His professional qualifications include: Senior Member (Natural Resources), American Society of Appraisers; Charter Member, American Institute of Professional Geologists; Member, Society of

Paschall's appraisal method involved the projection of the level of future demand for concrete-type aggregate and stone for the years 1972-96 in the Lompoc Valley and North County areas, and an estimate of the amount of this demand that could be captured by Tract 83 production. These production volumes were applied to net operating profits per ton to derive the total net operating income (NOI) for each year of the 25-year period. The total NOI per year then was multiplied by the relevant present worth factor for a 10.5 percent rate of return; this gave the present worth of NOI for each year. The discounted NOI total for all years produced a total property value, from which Paschall deducted the value of investments in associated plant and equipment, to obtain the residual mineral right value as of the taking date.[26]

Paschall abandoned demand estimates that were based on particular projects (Port San Luis and Rincon), as used by McVay and Schmidt. His demand analysis began with statewide demographic data on rock and aggregate production figures during the 5-year period 1967-71. Those figures were projected for 25 years in the market area, using the expotential rate of change that was derived from the 5-year period. By this procedure, Paschall claimed his estimates of total 1972-96 needs of concrete-type aggregate and stone in the Lompoc Valley and North County areas took the

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Mining Engineers of AIME; Registered Geologist, State of California (Cert. No. 8); and Registered Professional Engineer, State of California (Ce. No. 537). He was also the editor and principal author of "Assessor's Handbook 560, "Valuation of Mines and Quarries," published by the California State Board of Equalization, 1973, which is the official guide in California for the market-value appraisal of mining properties for property tax purposes.

[26]Paschall's computation of NOI per ton treated royalty to the lessor as an expense. His calculation of the value of the operator's interest in the leasehold, accordingly, correctly includes the amount that represents value of the lessors' interest.

question of total future demand out of the field of guess work, and avoided the "fruitless arguments over the possible contribution of this project and that project to the viability of a given rock and aggregate operation."

Paschall also included an allowance for the cost of improving the LaSalle Canyon Road, and provided for start-up costs, including investment capital for machinery and transportation equipment. His analysis of Tract 83's transportation advantage due to its location included an examination of the locations of quarries potentially available to supply 16 projects that had been under consideration over a 15-year period. His reports and testimony included a discussion about the ability of plaintiffs to undertake a quarry operation of the magnitude projected. This was supplemented by testimony from Jack S. Foster and James H. Mosby, which established that financial support would be available to launch a Tract 83 quarry, and that plaintiffs could provide the experience required for its operations.[27]

Paschall's calculation of a $4,221,000 value for the Tract 83 dolomite rights includes elements that are variable through the operation of a variety of causes. Even small

[27]James H. Mosby has been a practicing dentist since 1958 and has lived in the vicinity of Lompoc, California, since December 1959. He has had extensive and profitable experience as a land developer. In June 1968, James H. Mosby acquired the lease to a rock quarry located about 10 miles from the Vandenberg Air Force Base Tract 83, and he operated that quarry (Missile City) for approximately 3 years. Jack S. Foster is a general engineering contractor who has had extensive experience in rock quarry operations. His background includes quarrying operations in the Philippine Islands, in Alaska, and in most of the quarries in the central coast area of California. Since 1958, his contracting activities have involved building roads, reservoirs, quarry work, building sites, and subdivisions. Foster and Mosby first met in 1969, at which time Foster's activities involved operations in the See Canyon, Missile City, Morrow Rock, and Cambria Pines quarries.

variations in some of these elements can result in substantial differences in the final value. Uncertainty concerning the validity of Paschall's assumptions, and the lack of objective standards to control the variable elements, notwithstanding the fact that his appraisal calculations have a logical consistency, render his final value determination unrealistic and unpersuasive.

Basic to Paschall's calculations is the assumption that the per capita usage of stone and concrete grade aggregate in the entire State of California during the 5-year period 1967-71 would be a measure of the per capita usage in Tract 83's markets in Santa Barbara county during a 25-year period from 1972-96. That the per capita use of stone and aggregate in Santa Barbara county would be equivalent to such use statewide is not self-evident. Further, Paschall did not show and compare actual Santa Barbara county uses during the period 1967-71. Paschall's per capita use of aggregate is based on the quantity of cement produced in California, multiplied by 6. No adjustment was made for cement produced in California but exported and not used in California, nor was adjustment made for that portion of aggregate needs in the 1967-71 period that was satisfied by suppliers of natural gravel rather than by suppliers of crushed stone. Slight variations in Paschall's per capita usage figures would have greatly magnified effects in the sequence of subsequent calculations.

Paschall assumed that the 2.42 percent rate of growth of the California State population from 1960 to 1970 would be the same as the rate of population increase in the Lompoc Valley market and in the North County market annually from 1972 through 1996. Paschall constructed a January 1972 population number for Lompoc Valley from 1979 data, and a number for total North County from 1970 data. Paschall made no showing of Lompoc Valley population or

total North County population for the 1960-70 period. The rate of growth in the populations of these two market areas may or may not coincide with the statewide population rate.

Population numbers, however, are central to Paschall's computation of demand for stone and aggregate in Tract 83's markets, as well as for Tract 83's annual production. The rate of population growth used by Paschall has the effect in subsequent calculations of increasing Tract 83 stone production for Lompoc Valley from 42,805 tons in 1972 to 75,995 tons in 1996, and for other North County from 32,138 tons in 1972 to 56,982 tons in 1996. Net operating income from Lompoc Valley sales of stone was computed at $218,304 in 1972 and grew to $387,574 in 1996; other North County NOI similarly grew from $147,835 in 1972 to $262,117 in 1996. Paschall's use of the population rate of growth factors had the effect of assuring a constant increase in NOI for 25 years. Again, even slight variations in the factor used by Paschall would have magnified effects on the total residual value obtained.

Paschall allocated to Tract 83 production a capture of 50 percent of the Lompoc Valley demand for stone, 20 percent of Other North County demand for stone, and 30 percent of Lompoc Valley's demand for concrete aggregate during each year of the 25-year production period. This allocation was based on a personal assessment of the ability of other quarries to compete, and was confined to considerations related to capacity and location. Other percentages could just as reasonably have been selected, with entirely different effects on the result.

The record supports the conclusion that, for other items, values could have been used that were different than those used by Paschall in his computations. Paschall estimated that Tract 83 over 25 years would produce 1,162,871 tons

of aggregate and 3,075,013 tons of stone. Wholly apart from the Missile City experience, respectable opinion in the record, as discussed above, supports the conclusion that Paschall's estimate of quantity may be excessive. The same conclusion is applicable to his estimate of quality, *i.e.*, that Tract 83 could produce 70 percent riprap and 30 percent concrete aggregate.

To compute Tract 83's net operating income per ton Paschall estimated a production cost of $0.90 per ton. Plaintiffs' expert (McVay), on the other hand, used a production cost per ton of $2.50 in his computation of the operator's interest based on the Port San Luis project, and a production cost of $1.50 for his computation based on the Rincon project. Plaintiffs' quarry expert (Schmidt) estimated production costs for blasting, sorting and loading at $1.50 per ton. Defendant's expert (Chapman) used an average production cost for all rock produced in the quarry over the 25-year period; this figure was $0.3125 per ton. Paschall's estimate of $0.90 cost per ton was based on a comparison of production costs of four California quarry operations that ranged from $0.65 to $1.14 per ton and was referenced to a proposed output of 220,000 tons per year. Tract 83's production was estimated to range from 125,424 tons in 1972 to 222,557 tons in 1996. It is obvious that the amount for production costs in Tract 83's projected operations is a variable that reasonably could have been different from the amount used by Paschall. Any different amount would have produced a value other than Paschall's recommended value.

Paschall's estimate for improving the LaSalle Canyon Road for use by heavy truck traffic was based on conversations with plaintiffs' quarry operator (Sanchez). These estimates, as of November 1971, were $6,264 for basic grading and widening, and $16,704 for an all weather sur-

face, a total of $22,968. Defendant's estimate of the cost to rebuild the LaSalle Canyon Road was $300,000 per mile, a total of $750,000. The cost to build a road capable of heavy truck use over a 25-year period probably would exceed plaintiffs' estimate substantially, and may even exceed defendant's.

The capitalization of income approach requires the future income stream to be discounted in order to obtain a "present value" as of the date of taking. Paschall multiplied the total NOI per year by a present worth factor for a 10.5 percent rate of return.[28] Different discount rates were used by other experts in their capitalization of income calculations: McVay used 17 percent, Schmidt did not apply a discount factor, and Chapman used discount factors of 15 and 18 percent.

Paschall's use of a discount factor based upon a 10.5 percent return on invested capital does not adequately reflect the risks involved in the operations of a quarry on Tract 83 over a 25-year period. The discount factor Paschall used accounts only for the value of the deferral of income over time; it measures compensation for a lost rate of return on a capital sum invested in 1971. Paschall's discount factor does not account for the risks involved in a business to start on raw, unproven land, with no history of income producing operations. Nor does it account for the risk that in any particular year the quarry could operate

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[28]Paschall's total enterprise rate of return was obtained in a calculation where net operating income (before depletion and depreciation, amortization, interest and income taxes) was divided by enterprise value (common stock, preferred stock, current liabilities and long term debt). The 10.5 percent rate used in his appraisal was obtained from the average of the rates of return on invested capital of four operating cement companies: California Portland (10.9%), General Portland (10.8%), Kaiser Cement and Gypsum (11.0%), and Lone Star Industries (10.1%).

at a loss and have a negative NOI, or that the NOI over time could change due to the quantity or quality of the deposits, or because sales were lost to competitors. Such risks, moreover, were not accounted for in the other elements of Paschall's calculations.

In sum, Paschall's appraisal computations produced an interesting mathematical exercise. They are defective, however, and do not produce an acceptable measure of the value on November 18, 1971, of the operator's interest in the right to extract dolomite from Tract 83.

CONCLUSION

On the basis of the entire record complied in both trial sessions, it is concluded that the value of plaintiffs' leasehold interest taken on November 18, 1971, was $28,000, and plaintiffs are entitled to that amount. Deficiencies in plaintiffs' calculations that employed the capitalization of income approach are apparent on the record, and plaintiffs have not shown that any knowledgeable purchaser would have been willing to pay an amount even approximating the valuation they seek, or, indeed, any amount more than $28,000. It is concluded that the testimony and evidence on value by Robert L. Chapman, Oliver W. Bowen, William R. Merrill and C. William McClung, are more persuasive and are entitled to greater weight than the final estimates of plaintiffs' experts. The amount allowed gives effect to the contention of C. William McClung that dolomite would have a value of from $0.015 to $0.02 cents per ton in place, and to the estimate of Robert H. Paschall that Tract 83 over the 10-year period of plaintiffs' lease could produce a total of approximately 1,400,000 tons of dolomite, and it takes into account the fact that plaintiffs were able to purchase in 1972 for $5,000 the royalty interest in the leasehold, as well as the balance of the reserved mineral fee.

In order to produce the full equivalent of the property taken, just compensation includes interest on the market value of the mineral rights taken, computed at simple interest rates from the time of taking to the time of payment.[29] The proper rate of interest to be applied in this case is 7.5 percent during the 1971-74 period, and 8.5 percent during the 1976-79 period.[30] Interest at 12 percent per annum for 1980 has been held in this court to be reasonable.[31] The average yield on Aaa bonds in Moody's Composite Index on Corporate Bonds for 1981 was 15.06 percent; for the 6 month period January-June 1982, it was 15.71 percent. It is concluded that for the year 1981, and until the date of payment, interest at the rate of 15.5 percent would be reasonable.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act authorizes payment of litigation expenses, including reimbursement for reasonable attorney, appraisal and engineering fees, in a taking case when compensation is awarded.[32] Plaintiffs may file an application for litigation expenses, with supporting itemized accounts, within 30 days after the date of this opinion. Defendant may file a response 28 days after plaintiffs' application is filed, to which plaintiffs may reply in 14 days. Defendant's response shall include a statement of the man-hours utilized by the United States on this case, and the amounts defendant paid to consultants and experts.

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[29]*Albrecht* v. *United States*, 329 U.S. 599 (1947); *Miller* v. *United States*, 223 Ct. Cl. 352, 620 F.2d 812 (1980).

[30]*Miller* v. *United States*, *supra* note 29, 223 Ct. Cl. at 404-05, 620 F.2d at 840.

[31]*Berenholz* v. *United States*, 2 USCCR No. 5, at 19 (1982) (Colaianni, Judge).

[32]42 U.S.C. § 4654(c) (1976).

APPENDIX C

In the United States Claims Court

No. 34-75

(Filed: October 20, 1983)

JACK S. FOSTER, *et al.* v. THE UNITED STATES	Eminent Domain; Attorney Fees and Expenses; 42 U.S.C. § 4654(c); Interest Computation for Just Compensation.

CHARLES W. WILEY, Santa Barbara, California, attorney of record, for plaintiffs. RICHARD L. LONGPRE', Santa Barbara, California, of counsel.

GERALD S. FISH, Washington, D.C., with whom was ASSISTANT ATTORNEY GENERAL CAROL E. DINKINS, for defendant.

OPINION

HARKINS, *Judge.*

Disposition of this taking case has been protracted. Substantial amounts of litigating time and effort have been expended by counsel and by the courts. Plaintiffs' petition (now complaint) was filed in the United States Court of Claims on February 7, 1975. There was a 10-day trial in January-February 1977 on both liability and quantum issues. The trial judge's opinion, filed on October 18, 1978, concluded that there had been a temporary taking, and that the date of taking was November 18, 1971. In an opinion dated October 17, 1979[1], the Court of Claims determined that plaintiffs' mineral rights had been permanently abrogated, and remanded the case to the trial division for ascertainment of plaintiffs' compensation. The parties were unable to stipulate the amount due to plaintiffs, and further evidentiary proceedings, over defendant's objection, were ordered. A second 10-day trial was held in January 1981.

[1] *Foster* v. *United States*, 607 F.2d 943 (Ct.Cl. 1979) ("Foster I").

On October 1, 1982, the case was transferred to the United States Claims Court by section 403(d) of the Federal Courts Improvement Act of 1982.[2] In an opinion filed April 7, 1983, plaintiff's leasehold interest that was taken on November 18, 1971, was valued at $28,000[3] and counsel were given a briefing schedule with respect to plaintiff's application for litigation expenses pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.[4] Final briefing on plaintiffs' application was completed August 25, 1983.

Plaintiffs have applied for a total reimbursement of $214,736.69. Defendant does not question its responsibility for plaintiffs' reasonable litigation expenses and is satisfied with the accuracy of plaintiffs' supporting documentation. Defendant objects, however, to $6,323.59, in attorney fees and costs, and to $10,173.45 in expert witnesses' fees and other expenses, on the ground that plaintiffs' request for an additional evidentiary proceeding was not reasonable and that the expenses incurred therein are ineligible as reasonable costs of litigation.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 requires the court render-

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[2] 28 U.S.C.A. § 171 note (1983).

[3] *Foster* v. *United States*, 2 Cl.Ct. 426 (1983) ("Foster II").

[4] 42 U.S.C. § 4654(c) (1976) provides:

"(c) Claims against the United States

"The court rendering a judgment for the plaintiff in a proceeding brought under section 1346(a)(2) or 1491 of title 28, awarding compensation for the taking of property by a Federal agency, or the Attorney General effecting a settlement of any such proceeding, shall determine and award or allow to such plaintiff, as a part of such judgment or settlement, such sum as will in the opinion of the court or the Attorney General reimburse such plaintiff for his reasonable costs, disbursements, and expenses, including reasonable attorney, appraisal, and engineering fees, actually incurred because of such proceeding."

ing judgment for plaintiff in taking case to allow as part of the judgment, an amount that will reimburse the plaintiff "for his reasonable costs, disbursements and expenses, including reasonable attorney, appraisal, and engineering fees actually incurred."

The statute requires: (1) judgment for plaintiff for a taking; (2) reasonable fees and expenses; and (3) fees and expenses that are actually incurred because of the proceeding. Plaintiffs have established that they are entitled to judgment and that the property taken had a value of $28,000. Plaintiffs' application for fees and expenses, with the supporting materials, establish that the amounts claimed were actually incurred because of this litigation, and in fact have been paid by plaintiffs.

The statute does not specify a standard to establish the limits of what are "reasonable" as fees and expenses. The United States Court of Claims, in taking cases where the judgment involved attorney fees and expenses under 42 U.S.C. § 4654(c), did not identify specific factors to be applied to give content to "reasonable" as used in the statute.[5] In its consideration of attorney fee allowances pursuant to the Indian Claims Commission Act,[6] the Court of Claims endorsed the standard that derived generally from the factors set forth in the American Bar Association Code of Professional Responsibility, DR 2-106(B).[7] Courts

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[5]*See e.g.*: *Pete* v. *United States*, 569 F.2d 565 (Ct.Cl. 1978), *Emeny* v. *United States*, 526 F.2d 1121 (Ct.Cl. 1975); *King* v. *United States*, 504 F.2d 1138 (Ct.Cl. 1974); *Drakes Bay Land Co.* v. *United States*, 459 F.2d 504 (Ct.Cl. 1972).

[6]25 U.S.C. § 70n (1976).

[7]*Cherokee Nation* v. *United States*, 355 F.2d 945, 953-54 (Ct.Cl. 1966). The following factors were listed as criteria generally considered in awarding compensation to attorneys:

"(1) The nature of the undertaking and the character of the services required.

in passing upon "reasonable" attorney fees authorized in other statutes generally have considered these factors, with minor variations in order and definition.[8]

"(2) The responsibility assumed.

"(3) The professional repute, standing, ability and experience of counsel.

"(4) The services rendered, including the time and labor required.

"(5) The magnitude and importance of the cases.

"(6) The novelty and difficulty of the questions involved.

"(7) The opposition encountered.

"(8) The results accomplished and the benefits flowing to the clients.

"(9) The professional competence displayed, including skill, industry, and diligence.

"(10) The fidelity of counsel to the interests of their clients.

"(11) The contingent nature of the employment and the hazards and risks involved.

"(12) The loss of income and opportunities for other employment due to employment of counsel in the litigation for which compensation is to be awarded.

"(13) Customary charges and going rates of attorneys for similar services." " "

[8]In the determination of a reasonable attorney fee under Title VII of the Civil Rights Act of 1964, (42 U.S.C. § 2000e-5(k)), the Fifth Circuit utilized a 12 point analysis with the following factors:

". . . (1) the time and labor required; (2) the novelty and difficulty of the questions; (3) the skill requisite to perform the legal services properly; (4) the preclusion of other employment; (5) the customary fee in the community for similar work; (6) the fixed or contingent nature of the fee; (7) time limitations imposed by the client or the circumstances; (8) the amount involved and the resulted obtained; (9) the experience, reputation, and ability of the attorneys; (10) the undesirability of the case; (11) the nature and length of the professional relationship with the client; and (12) awards in similar cases."

Johnson v. *Georgia Highway Express, Inc.*, 488 F.2d 714, 717-19 (5th Cir. 1974). *See also Copeland* v. *Marshall*, 641 F.2d 880 (D.C. Cir. 1980); *Kerr* v. *Screen Extras Guild, Inc.*, 526 F.2d 67 (9th Cir. 1975), *cert. denied sub nom. Perkins* v. *Screen Extras Guild, Inc.*, 425 U.S. 951 (1976).

The weight to be given to the respective factors varies with the requirements of the particular case. Of primary importance, however, is a consideration of the number of hours reasonably expended, and the hourly rate that is reasonable and customary in the community for the type of work involved.[9] In this case, in addition, emphasis is given to the complexity of the litigation, the rates the parties have agreed upon, the time that has been consumed between the initial taking and the award of compensation to plaintiffs, and the policies that underlie the decision of Congress to reimburse plaintiffs who ultimately are successful in taking cases.

Plaintiffs' application shows that fees were billed on a straight time basis, and that the rates changed over the period involved. Plaintiffs do not seek reimbursement on a "flat rate" basis, with the highest rate applied to the entire period. The following hourly rates were charged for work performed during the course of this litigation:

Time Period	Principal Attorney	Associate Attorneys
1975 and part of 1976	$65/hour	$30-$40/hour**
latter 1976 and 1977	$70/hour	$35/hour
1978	$75-$80/hour*	$35-$40/hour**
most of 1979	$80-$85/hour*	$40-$50/hour**
latter 1979 and most of 1980	$100/hour	$55/hour
latter 1980 and most of 1981	$115/hour	$65/hour
latter 1981 and most of 1982	$120/hour	$75/hour

[9]In the District of Columbia Circuit, this is termed the "lodestar" formula. *Copeland* v. *Marshall*, 641 F.2d at 891.

Time Period	Principal Attorney	Associate Attorneys
latter 1982	$125/hour	$75/hour
1983 thru March	$135/hour	

* rates shifted slightly in mid-period;
** rate differences reflect differences in experience of personnel

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The hours expended by the principal attorney, associates, and law clerks/paralegals were as follows:

Hours

Year	Principal	Associates	Law Clerk/Paralegal
1975-77*	253.9	167.8	61.6
1977	243.8	291.2	0
1978	153.5	11.6	30.1
1979	110.8	140.3	0
1980	120.0	166.9	0
1981	226.5	232.6	0
1983**	.5	0	0

* thru March 31
** to April 1, 1983

The total amount of attorney fees and expenses for which plaintiffs seek reimbursement is summarized as follows:

Category	Total
Attorneys (includes costs (of $10,601.51)	$161,619.06
Appraisers	25,563.50
Engineers and Geologists	15,551.43
Reporters	4,809.78
Laboratories	3,448.08
Miscellaneous (includes travel, hotel, equipment, rentals, etc.)	3,744.08
	$214,736.69

According to defendant's estimates, this case required 3,281 man-hours of federal employees' time, exclusive of secretarial and other administrative support staff; of which 1,722 man-hours were from the Air Force and the Corps of Engineers, and 1,559 man-hours were by Department of Justice counsel. No official Air Force, and Corps of Engineers records were maintained for time devoted to this litigation. Hours shown for Department of Justice counsel are derived from records maintained since October 1, 1977, and from estimates.

The Government expended $39,426 in the employment of non-federal experts and consultants. Approximately 30 percent of defendant's federal man-hours, and $10,000 for experts and consultants is attributable to the second trial on damages. The payments to outside experts and consultants do not include all of defendant's costs for technical services. Professional assistance and laboratory facilities of the Corps of Engineers, and in-house technical experts of the Air Force, were used before the taking date, and supplemented the outside experts' work during the litigation.

Plaintiffs have accounted for every reimbursable expenditure within the scope of the Act over the 9 years of the proceeding. The record includes copies of the invoices, a detailed statement of each item of legal work done, and payment checks (including the reverse sides of all litigation expense checks, to demonstrate they in fact were negotiated). Time records showing time expended by the principal attorney, the associate attorney, and support staff is shown for each year, with the number of hours charged at each rate. It is established on the record that the rates charged were consistent with the rates for comparable services that prevailed in Santa Barbara during the relevant periods.

The burden that plaintiffs have borne successfully in this litigation has been heavy. Plaintiffs were confronted with a succession of obstacles that were developed with great skill by able counsel and a battery of technical experts. Initially, defendant moved for summary judgment on the ground that plaintiffs were barred by the Anti-Assignment Act.[10] Defendant contended that if there had been a taking of any property interest, such taking had occurred before plaintiffs acquired any interest in the land. Plaintiffs' response caused defendant to acknowledge that there was a substantial question as to the applicability of the Act to the facts of this case and to move to withdraw its summary judgment motion. Defendant, after the first trial, however, reasserted its Anti-Assignment Act contention. After extensive briefing, this issue was resolved against defendant in *Foster I*.[11]

To secure compensation, plaintiffs were required to establish: (1) that dolomite was a mineral intended to be included in the reservation of mineral rights, (2) that the Government's denial of access to the deposits constituted a taking, and (3) that the deposits had a compensable commercial value. On all of these issues, defendant's opposition was adamant and vigorous. The mineralogical issues concerning a reservation of dolomite as a mineral, and the valuation of a mineral estate, involved technical complexities that produced a proliferation of expert witnesses. Plaintiffs' case included seven experts on geological and appraisal issues; defendant's opposition contained the advice of 12 experts on those issues. Counsel for each side had to be prepared with a working knowledge of geology and related scientific fields.

Throughout this litigation, the liability issues were closely related to the question of compensation, and the evidence

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[10]31 U.S.C. § 203 (1976).

[11]*Foster* v. *United States*, 607 F.2d at 947, n. 6.

developed and presented in support of the parties' positions was interwoven. The initial trial included both liability and compensation issues. The Court of Claims decision in *Foster I* determined only that plaintiffs' mineral rights had been abrogated. The valuation of plaintiffs' leasehold interest in the right to extract and remove dolomite from a specific site required application of complex mining and scientific technical information as well as knowledge about appraisal of a mineral estate.

The reimbursement provisions of 42 U.S.C. § 4654(c) were designed to supplement real property acquisition policies mandated by Congress. The purposes of these policies, among others, was to encourage and expedite the acquisition of real property by agreements with owners, and to avoid litigation and relieve congestion on the courts. Policies 7 and 8 of the Act provide:

> (7) In no event shall the head of a Federal agency either advance the time of condemnation, or defer negotiations or condemnation and the deposit of funds in court for the use of the owner, or take any other action coercive in nature, in order to compel an agreement on the price to be paid for the property.
>
> (8) If any interest in real property is to be acquired by exercise of the power of eminent domain, the head of the Federal agency concerned shall institute formal condemnation proceedings. No Federal agency head shall intentionally make it necessary for an owner to institute legal proceedings to prove the fact of the taking of his real property.

Defendant acknowledges that plaintiffs are entitled, under the Act, to $143,239.65 as compensation for fees and expenses actually incurred because of this taking case. Defendant objects, however, to compensation for attorney fees and expenses related to the preparation for, and con-

duct of, the second trial on the issues of damages. Initially, defendant argued that an expenditure of $214,736.69 to secure an award of compensation of $28,000 plainly was unreasonable, and that plaintiffs should not be reimbursed for any expenses incurred after the Court of Claims rendered its decision on October 17, 1979. Subsequently, defendant became satisfied that the October 17, 1979, cutoff date was not appropriate because the decision necessarily left something further to be done and that some expenses incurred by plaintiffs after that date were reasonable. Defendant's revised objection was to compensation for payments to expert witnesses and for other expenses that total $10,173.45, and for payments of attorney fees and costs that total $61,323.59. Defendant's revised objection to plaintiffs' expenditures deemed unreasonable centers upon attorney fees and costs shown on statements submitted by plaintiffs on and after July 10, 1980, and expenses for expert witnesses shown on statements on or after July 3, 1980.

The problem in this case is one which, in the normal course, assessment by the parties of their respective positions should have produced a settlement at an early stage before litigation was needed. Settlement prior to the initiation of litigation was hampered because of plaintiffs' exaggerated concept of the value of the property involved, and defendant's failure to appreciate the exposure implicit in a mineral reservation that was held over from a hurried acquisition in October 1941. On April 12, 1974, plaintiffs asserted a claim to the Director of Real Estate, Washington Office of the Chief of Engineers, of "$18,750,000, based on a probable extractable deposit of 25,000,000 tons, valued on a royalty basis 'in-place' at 75¢ a ton." Although defendant recognized that the property was subject to a mineral reservation, it persisted in its concept that dolomite rock was not intended to be included in the mineral reservation.

This case followed, and defendant's position subsequently was found to be erroneous.

On May 6, 1980, after the remand for ascertainment of plaintiffs' damages, a pretrial conference was held to clarify the status of the negotiations for a settlement and to determine if further proceedings would be required. The conference memorandum contains the following paragraphs:

> 2. Efforts by counsel to reach a settlement on the amount plaintiffs could recover were discussed. Counsel were instructed to explore further the possibility of settlement and to reexamine their respective positions in the light of reasonable expectations in the event the case proceeded to final determination by the court.
>
> 3. It was pointed out that the October 18, 1978, opinion set forth the trial judge's analysis of plaintiffs' entitlement to recovery on the basis of the record as it currently stands, namely that plaintiffs have not shown that any knowledgeable purchaser would have been willing to pay more than $23,250 for the right to extract dolomite from the Tract 83 deposits. Defendant's concession of that amount was accepted in the absence of any more definitive measure acceptable under legal and accounting principles. Further, evidence presented by plaintiff at trial was not persuasive, and its computation of the operator's intent was characterized as "blue sky speculation." Counsel were advised that the reasoning that applied on this record to a valuation of a temporary taking logically could be applied to valuation of a permanent taking, and that the trial judge was prepared to accept $23,250 as the amount to be recovered if counsel wanted to go forward on the basis of the record as it now stands. Plaintiffs were advised that the materials submitted pursuant to

the January 7, 1980, order appeared to be subject to infirmities similar to that in evidence previously adduced and to contain assumptions that would be vulnerable under cross-examination. Plaintiffs stated the evidence intended to be adduced is probative and noncumulative and that counsel preferred to reopen the record, rather than go forward on a valuation of $23,250 established in the present record.

4. There was discussion of the Government's exposure to future litigation. The Government's assembly of land for Camp Cooke subject to a reservation of mineral rights in the vendors exposes defendant to risks in the future from plaintiffs with respect to Tract 83 as well as from other holders of mineral reservations.

Defendant's objection to expenses shown on the statement of July 10, 1980, runs to charges for attorney services rendered in June 1980, in the amount of $4,408.13. In the light of the court's direction at the May 6, 1980, conference for counsel to reexamine their respective positions, expenditures through June 1980 reasonably may be related to the collection of information that would have bearing upon reconsideration of plaintiffs' position and a renewal of settlement negotiations. Accordingly, plaintiffs' expenditures during June 1980, for attorney services, as reflected on the July 10, 1980, statement are deducted from "expenses due to or arising from the conduct of the second trial" to which defendant objects. The expenditures incurred after July 1, 1980, as shown on the August 19, 1980, statement are allocable to the expenses of the second trial. Accordingly, $4,408.13 is deducted from defendant's list of challenged attorney fees and costs, and the total is reduced to $56,915.46.

A further adjustment is made to the total of $56,915.46 for attorney fees and costs to which defendant objects. The failure of the parties to settle this problem, either without litigation, or at least after the question of liability was determined in the October 17, 1979, Court of Claims decision, is the responsibility of both parties. Defendant should bear an equal share. Accordingly, the amount to which defendant objects is divided equally, and $28,457.73 is deducted from plaintiffs' total claim.

Defendant's objection to $10,173.45 for expert witnesses and other expenses is logically consistent with defendant's purpose to deny reimbursement for expenses due to or arising from the conduct of the second trial. These expenses were necessary to supplement plaintiffs' theory of damages. The information provided by these experts was utilized at the second trial, and was useful in the April 7, 1983, decision. Accordingly, reimbursement is allowed for these charges.

Plaintiffs are entitled to recover as just compensation $28,000 plus interest, and the sum of $186,278.96 for reasonable costs, disbursements, and expenses.

In order to produce the full value of the property taken, just compensation includes interest. Interest is to be computed at simple interest rates from the time of taking to the date of payment.[12] The Court of Claims established 7.5 percent as the appropriate rate for the period 1971-75; 8.5 percent as the appropriate rate for the period 1976-79. A rate of 12 percent has been found to be appropriate for the period 1980-82.[13] In the April 7, 1983, opinion, interest

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[12]*Albrecht* v. *United States*, 329 U.S. 599, 604 (1947); *Miller* v. *United States*, 620 F.2d 812 (Ct.Cl. 1980).

[13]*Miller* v. *United States*, 620 F.2d at 840; *Georgia Pacific Corp.* v. *United States*, 640 F.2d 328, 367 (Ct.Cl. 1980); *Berenholz* v. *United States*, 1 Cl. Ct. 620 (1982).

to be paid on the mineral rights taken for years after 1981 was to be computed on the average yield on Aaa bonds in Moody's Composite Index on Corporate Bonds.[14]

The Contract Disputes Act requires interest on contract claims allowed under the Act to be paid at the rate established by the Secretary of the Treasury pursuant to Pub. L. No. 92-41 (85 Stat. 97).[15] This method of establishing interest rates has the approval of Congress, and this court requires such rates to be paid on contract claims. Little justification is seen for utilization of another method to establish the rate that is to be included in just compensation in a taking case. Rates established under the Contract Disputes Act procedure for the following periods are:

Period	Rate
Jan. - June 1980	12¼ percent
July - Dec. 1980	10½ percent
Jan. - June 1981	14⅝ percent
July - Dec. 1981	14⅞ percent
Jan. - June 1982	14¾ percent
July - Dec. 1982	15½ percent
Jan. - June 1983	11¼ percent
July - Dec. 1983	11½ percent

For purposes of uniformity in compensation of claims against the Government, flexibility in administration, notice to the public, and judicial efficiency, rates established under the method required in the Contract Disputes Act are deter-

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[14] *Foster* v. *United States*, 2 Cl.Ct. at 456. ("Foster II"). The average yield on Aaa Corporate Bonds for 1981, was stated, in error, to be 15.06 percent, and, for the 6 month period January-June 1982, it was stated, in error, to be 15.71 percent. The average yield on Aaa Corporate Bonds for 1981 was 14.17 percent; for 1982, it was 13.79 percent; and for the first 4 months of 1983, it was 11.76 percent.

[15] 41 U.S.C. § 611 (Supp. V 1981).

mined to be appropriate for computation of just compensation in this taking case for the period commencing January 1, 1980.[10]

CONCLUSION

On condition that plaintiffs execute a quit claim deed relative to any right to extract dolomite from the two identified deposits on Tract 83 and deliver same to defendant, judgment shall be entered for plaintiffs in the amount of twenty-eight thousand dollars ($28,000), with just compensation to include interest on that amount at the rate of 7.5 percent per annum from November 18, 1971, through December 31, 1975; 8.5 percent per annum from January 1, 1976, through December 31, 1979; and from January 1, 1980, to the date of payment at the rate established by the Secretary of the Treasury pursuant to Pub. L. No. 92-41 (85 Stat. 97) for the Renegotiation Board. In addition, the judgment shall include one hundred eighty-six thousand two hundred seventy-eight dollars and ninety-six cents ($186,278.96) as compensation for reasonable costs, disbursements and expenses.

KENNETH R. HARKINS, *Judge*

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[10] *See Jones* v. *United States*, 3 Cl.Ct. 4 (1983).

APPENDIX D

In the United States Court of Claims

No. 34-75

(Decided October 17, 1979)

JACK S. FOSTER, *et al.*, v. THE UNITED STATES

Charles W. Willey, attorney of record, for plaintiffs.

Gerald S. Fish, with whom was *Assistant Attorney General James W. Moorman*, for defendant.

Before FRIEDMAN, *Chief Judge*, COWEN, *Senior Judge*, and KUNZIG, *Judge*.

OPINION

KUNZIG, *Judge*, delivered the opinion of the court:

Plaintiffs bring this claim for $4,368,750 plus interest, based on the Fifth Amendment of the Constitution, which declares, in part, "nor shall private property be taken for public use without just compensation." They argue that as owners of certain mineral rights located on Government property, defendant's denial of access to such property constitutes a compensable taking within the Fifth Amendment. The Government denies that plaintiffs have any interest as claimed, and even if so, that no taking of such an interest has occurred. We hold for plaintiffs.[1]

The mineral interests which are the subject of the instant case are located in southern California and are part of a tract of land (Tract 83) which was acquired by the

[1]Trial Judge Harkin's excellent recommended opinion also held for plaintiffs generally, although we find the taking permanent rather than temporary. The findings of fact are not printed here since those relied upon by the court, and necessary to the result, are contained herein.

United States in the activation of Camp Cooke, now Vandenberg Air Force Base, as an Army facility to train armored and infantry divisions. Activation of Camp Cooke was ordered in mid-1941; land acquisition commenced in September 1941; and defendant acquired an option to purchase Tract 83 on October 29, 1941, for $22.750.

The deed to the United States, dated June 11, 1942, contained the following provision:

> EXCEPTING AND RESERVING to grantors, their successors and assigns, the following:
>
> All oil, gas, asphaltum and othe rhydrocarbon substances and other minerals, including diatomaceous earth, in and under the land hereby conveyed, together with all easements, roads and privileges reasonably necessary to explore said land for, and to produce and transport therefrom, any of said minerals; provided, however, that the rights granted by virtue of this reservation shall not be exercised by grantors for a period of not less than five (5) years from the date hereon or during the present national emergency, whichever period is longer.

Defendant's title to Tract 83 was examined and approved by the Department of Justice. On July 9, 1942, the Attorney General reported to the Secretary of War that valid title was vested in the United States, subject to three described restrictions.[2] The Attorney General noted the Army had advised that the mineral reservation and rights incident thereto "will not interfere with the contemplated

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[2]Such restrictions were:

(1) Easements for roads, highways and public utilities.

(2) [Restriction on manufacture of liquor on the premises.]

(3) The mineral reservation which is the subject of the instant case and which is set out in full, *supra*.

use of the land." The mineral rights reserved in Tract 83 could not be exercised for a period of not less than five years, or during the national emergency (now expired) then in effect.

At the time of the sale to the United States, the predecessors in interest to plaintiffs (the McClellans) were aware of the fact that Tract 83 contained various rock deposits that could have substantial commercial value. The McClellans, however, made no attempt during the time they owned the mineral rights in question to ascertain the composition or nature of such deposits.

No interest was shown, by either the McClellans or defendant, in exploring the mineral deposits on Tract 83 until 1969. In that year due to several requests to enter Tract 83 to extract various minerals thereon by private contractors and state officials, Headquarters at Vandenberg Air Force Base sought advice from the Chief of the Real Estate Division, Los Angeles District, United States Corps of Engineers, concerning the right to refuse entry to holders of mineral rights such as those reserved on Tract 83. In response to this request, Vandenberg was advised that "sand and gravel, as reserved in a deed, were not minerals," and, therefore, it assumed that "with regard to Tract 83, the government has the exclusive right to explore for and to remove sand, gravel, limestone, clay, and similar substances." Vandenberg was further advised that the grantors (the McClellans) of Tract 83 had no right to quarry stone, or to authorize contractors to quarry stone, on Tract 83 "as the right is exclusive to the Government."

On July 8, 1971, plaintiffs in the instant action acquired a real property interest in Tract 83 through a lease executed by C. M. McClellan as lessor and James and Virginia Mosby as lessee. Prior to the acquisition of this

lease, James H. Mosby and Jack S. Foster had entered into an oral joint venture agreement for the acquisition of a mineral interest in Tract 83.[3]

The lease only permitted quarrying for riprap.[4] It provided:

> Lessee shall have the right to extract and remove and take from the premises all riprap rock and this lease does not include sa[n]d, gravel, diatomaceous material or petroleum products.

The lease had a five-year term (June 1, 1971 through May 31, 1976), renewable at lessee's option for an additional five-year term; an annual rental of $300, payable on June 1; and a supplemental monthly payment of 25 cents per ton of rock removed. Time was declared to be of the essence. Title to any rock removed from its natural state would "remain in the Lessor" until removed from the premises. The lease extended to, and inured to the benefit of the "heirs, legal representatives, successors, and assigns of the Lessor and the Lessee."

On November 3, 1971, James Mosby telephoned the Chief of the Acquisition Branch, Real Estate Division, Los

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[3]For convenience, the term "plaintiffs" refers to the joint venture formed by Foster and Mosby. Virginia E. Mosby and Charlotte Patricia Foster are co-plaintiffs by reason of their legal ownership of a real property interest; neither participated in negotiations for, nor purchase of, the lease or the property. The lease was taken in the names of the Mosbys for convenience, and the Fosters functioned as co-lessees, with C. M. McClellan's approval as lessor.

[4]Riprap consists of heavy, irregular rock chunks which are used chiefly for river and harbor work, such as spillways at dams, shore protection, docks, and other similar construction that must resist the force of waves, tides, or strong currents, and is also used to fill in roadways and or embankments. Bureau of Mines, *A Dictionary of Mining, Mineral, and Related Terms* 929 (1968) (hereinafter cited as *Dictionary of Mining Terms*).

Angeles District Engineers, to ask about permission "to remove a rock known as Dol[o]mite" under the lease. The dolomite was said to be urgently needed for construction on Highway 101. In this conversation, Mosby was advised that previous requests for access to the same land had been rejected.

Permission to survey and drill test the dolomite deposit for riprap rock was requested formally on November 4, 1971, in a letter that stated a local highway project on Highway 101 (the Rincon project) needed a large quantity of 12-ton rock before the coming winter storms. Permission was denied in a letter dated November 18, 1971, on the ground that dolomite was not a mineral within the meaning of the reservation in the deed "because it is desired for use as rock and not for the extraction of any minerals therefrom."

Plaintiffs' request for permission under the lease to extract dolomite for use as riprap rock was reiterated in a letter dated November 19, 1971. This letter pointed out that dolomite has a definite chemical composition and that the subject deposit could be quarried for 12-ton size rocks for use as riprap. Plaintiffs claimed they had an oral contract with Green Construction Company (Green) to supply a minimum of 50,000 tons of dolomite riprap rock for use on the Rincon project at a price of $4 per ton. Plaintiffs emphasized that continued denial of access to the dolomite deposits would jeopardize the contract with Green and lead to legal action for "damages in inverse condemnation for the governmental taking of the entire dolomite deposit on this property."

Although there was no direct response to plaintiffs' November 19, 1971 letter, in response to a further inquiry by Representative Charles M. Teague, Member, United States Congress, defendant explained on January 27, 1972,

that access under the McClellan lease had been denied because dolomite, when it was intended to be used as riprap, was not considered to be included in the phrase "other minerals" in the rights reserved in the deed.

After defendant denied access under the lease to quarry dolomite for use as riprap, plaintiffs purchased all of the mineral rights the McClellans had reserved on Tract 83. By deed dated May 2, 1972, plaintiffs acquired a grant of the following real property in Tract 83:

> All oil, gas, asphaltum and other hydrocarbon substances and other minerals, including diatomaceous earth, in and under the land described below, together with all easements, roads, and privileges reasonably necessary to explore said land for, and to produce and transport therefrom any of said minerals.

Plaintiffs purchased this property for $5,000, a price which was established by the McClellans. At the time plaintiffs purchased this reserved mineral interest, they knew that the United States claimed ownership to the dolomite deposit.

On April 12, 1974, plaintiffs reasserted a right to quarry and produce dolomite from the deposits on Tract 83. Plaintiffs reviewed previous correspondence, declared that site investigation by a geologist had disclosed that the dolomite deposit was ideally suited for economic and profitable extraction as riprap, and asserted "it is not the dolomite mineral as such which is profitable to extract, but the dolomite rock as it exists in its natural state."

Defendant's response, dated October 29, 1974, concluded that plaintiffs, as assignees of all of the rights retained by the McClellans, did not acquire any right to remove dolomite rock because the dolomite deposit was not a mineral within the scope of the reservation clause. Furthermore, they

responded that the anti-assignment statute barred[5] from asserting this claim against the Government. Plaintiffs were denied access to the Tract 83 dolomite deposit on the ground that title to the deposit had vested in the United States in the original 1942 deed. Plaintiffs thereafter timely brought suit in this court in February 1975.

I.

The dispute in this case is limited to the right of plaintiffs to quarry and remove dolomite rock from two deposits on Tract 83. The Government does not contest plaintiffs' right under the terms of the 1942 deed to Tract 83 to explore for and remove all oil, gas, asphaltum and other hydrocarbon substances. Rather, the Government asserts that the phrase "and other minerals" contained in the deed does not include dolomite. As such, plaintiffs have no vested right that the Government has violated.

As an alternative ground, defendant argues that, even if dolomite is a mineral within the meaning of the 1942 deed, the actions of Government officials in denying plaintiffs access to Tract 83 did not constitute a taking of plaintiffs' property interests demanding just compensation to be paid under the Fifth Amendment.[6]

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[5]31 U.S.C. § 203 (1976). *See* note 6 *infra* for discussion of defendant's claim.

[6]Defendant originally argued that the Anti-Assignment Act [31 U.S.C. § 203 (1976] barred any claim by plaintiffs. Now, however, the Government admits that a claim under the lease is valid but argues that the Act bars any claims based on the acquisition of the McClellan's entire interest in 1972. Since this court finds defendant's actions constituted a permanent taking, *infra*, it is important to show the inapplicability of defendant's argument.

The purpose of the Anti-Assignment Act was to prevent politically influential people from improperly trafficking in claims against the Government, to avoid multiple litigation, and to protect defenses

Plaintiffs argue that the phrase "and other minerals" employed in the 1942 deed is to be interpreted under well-established principles to construe reservations in deeds in favor of the grantor. As such, dolomite is included in the phrase "and other minerals," as intended by the parties to the deed. The failure to enumerate specifically dolomite as a reserved mineral under the deed, plaintiffs argue, is of no avail to defendant, since it is common practice to employ the phrase "other minerals" to reserve all substances which can be extracted from the land to yield value. Based on the foregoing, plaintiffs contend that since they had a vested right in the dolomite deposits on Tract 83 and were refused access to such deposits by defendant, they are entitled to be compensated for such interests in accordance with the Fifth Amendment.

We agree.

It is well established that in determining the nature of property rights created by a conveyance (here the 1942 deed) both this court and other federal courts have applied the law of the situs of the real property involved. *See, e.g., Thomas* v. *United States*, 205 Ct. Cl. 623, 505 F.2d 1282 (1974); *Johnson* v. *United States*, 202 Ct.Cl. 405, 479 F.2d

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the United States may have against the assignor by way of setoffs or counterclaim. *See Patterson* v. *United States*, 173 Ct.Cl. 819, 822-23, 354 F.2d 327, 329 (1965). No claim arose in regard to Tract 83 until November 18, 1971, long after plaintiffs acquired a leasehold interest. Thus, as defendant concedes, the Act does not bar any claim on the leasehold. The subsequent purchase of the entire interest in the mineral reservation was not the acquisition or "trafficking" of a claim covered by the Act but, rather, the perfection of the pre-existing interest in the land and claim against the Government. Furthermore, when the mineral reservation includes grantors, successors and assigns, a subsequent transfer of the mineral right is not barred by the Act. *United States* v. *Jordan*, 186 F.2d 803, 807-08 (6th Cir. 1951) ("successor and assigns" to timberland not barred by anti-assignment statute).

1383 (1973); *Coos County Sheep Co.* v. *United States*, 331 F.2d 456 (9th Cir. 1964). Moreover, when the United States contracts to acquire or in fact acquires real property within a particular state, the laws of that state control what rights arise in the United States therefrom. *United States* v. *Fallbrook Public Utility District*, 165 F.Supp. 806 (S.D.Cal. 1958); Restatement Second of Conflicts Section 223 (1971). On this basis, we turn to applicable California law to aid in the interpretation and construction of the 1942 deed.

The general custom and practice in the real estate and title insurance industries in southern California is that mineral reservations in deeds normally do not delineate specific minerals to be included in the reservation; rather, the phrase "other minerals" is used to encompass any mineral which can be extracted from the land to yield value. Indeed, the Government's own witness conceded that if, in drafting a deed, a grantor wanted to reserve all minerals that were present, the grantor would simply employ the phrase "other minerals."

Moreover, the California Civil Code specifically provides that reservations in a grant (deed) are to be interpreted in favor of the grantor. Cal. Civ. Code § 1069 (West 1973); *Deterdiz* v. *United States*, 107 Ct.Cl. 656, 69 F.Supp. 214 (1947); *People* v. *Ward*, 258 Cal.App.2d 15, 65 Cal. Rptr. 508 (1968). Additionally, California law provides that a deed, like a contract, should be interpreted so "as to give effect to the mutual intention of the parties at the time of contracting." Cal. Civ. Code § 1636 (West 1973); *Paddock* v. *Vasquez*, 122 Cal.App.2d 396, 265 P.2d (1953) (mineral deed); *Pacific Gas & Elec. Co.* v. *G.W. Thomas Drayage & Rigging Co.*, 69 Cal. 2d 33, 442 P.2d 641 (1968) (extrinsic evidence allowed to interpret writings in accord with parties' intent).

The intention of the grantors, the McClellans, was clearly established at trial. They were aware that sedimentary and ocean-borne deposits could have substantial value and that other prior rock quarries located in the vicinity had been commercially valuable. The specific deposits here in question were known by the McClellans to exist at the time of the 1942 conveyance to the United States since portions of the deposit then were and still are physically visible at the surface of the earth. The phrase "other minerals," as used in the reservation clause in the 1942 deed was specifically intended by the McClellans to reserve to themselves and to their successors and assigns not only the ownership of all hydrocarbon substances and all metallic ores, but also the ownership of any rock deposit which could be profitably extracted from the ground for any kind of commercial use. The intention to reserve rock as a part of the mineral estate was not limited to rock which was useable only in refined or processed form, or was useable only by reason of its chemical or physical properties, but also extended to and included rock which is used in its raw form, *qua* rock, for construction and rip rap purposes. The McClellans understood the potential value of extractable material and therefore reserved the entire mineral estate for the purpose of exploring and developing the estate should it ever become economically feasible to do so.

We therefore are compelled to conclude that the phrase "and other minerals" was intended to include other such minerals that may in the future be discovered and exploited on Tract 83, whether or not such minerals were specifically enumerated in the deed.

The question remains, however, as to whether dolomite qualifies as a "mineral" as that term is used in a scientific and geologic sense.

Evidence adduced at trial indicated that the term "mineral" denotes a naturally occurring solid having a chemical composition that varies only within pre-established, fixed limits. *See, e.g., Cumberland Mineral Co.* v. *United States,* 206 Ct.Cl. 797, 513 F.2d 1399 (1975). Additionally, a mineral is almost always crystalline in structure.[7] The record before us is clear that dolomite falls within the above description and thus qualifies as a "mineral" as that term is generally used.

While California law governs the interpretation of the deed and lease here in issue, *Thomas* v. *United States,* 205 Ct.Cl. 623, 505 F.2d 1282 (1974); *United States* v. *Fallbrook Public Utility District,* 165 F. Supp. 806 (S.D. Cal. 1958), that law accords with this court's admonition that in "construing mineral reservations each determination must be made in the light of the language of the particular instrument together with the circumstances and conditions existing at the time." *Cumberland Mineral Co.* v. *United States, supra* at 803, 513 F.2d at 1401, quoting, *Dierks Lumber & Coal Co.* v. *Meyer,* 85 F. Supp. 157, 162 (W.D. Ark. 1949), *Compare Palos Verdes Corp.* v. *Housing Authority,* 202 Cal.App.2d 837, 21 Cal.Rptr. 225 (1962). As discussed earlier, at the time the deed was executed, the grantors (the McClellans) were specifically aware of the presence of dolomite and its potential commercial viability.

The other language of the deed confirms this conclusion. The reservation included "other materials, including diatomaceous earth, in and under the land hereby conveyed * * *." This definition of mineral to include diatomaceous earth strongly suggests that the grantors broadly intended

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[7]For instance mercury, while classified as a mineral appears frequently in a liquid, non-crystalline form. Thus, the crystalline nature is not controlling, but highly indicative of the dolomite's characterization. See *A Dictionary of Mining Terms, supra* note 4 at 710.

the reservation to cover almost any substance that would be valuable if extracted. Indeed, if diatomaceous earth is a mineral, it is difficult to understand why dolomite also is not one.

In summary, we hold that (1) the reservation in the 1942 deed was intended to include minerals not specifically enumerated in the deed as found on Tract 83 and (2) dolomite is a mineral as that term is scientifically defined and as intended by the parties.

II.

The crux of plaintiffs' claim is that defendant's continued refusal of access to the dolomite deposits constituted a taking within the Fifth Amendment for which they are entitled to compensation. The trial judge found that a temporary taking occurred on November 18, 1971, and awarded plaintiffs $23,250 plus interest. We agree that defendant's actions constituted a taking as of November 18, 1971, but consider it a *permanent* taking.

Initially, we note that plaintiffs' leasehold interest in the reserved mineral rights is compensable. As an estate in real property, the Government must compensate for any taking. *Almota Farmers Elev. & Whse. Co.* v. *United States*, 409 U.S. 470 (1973); *United States* v. 237,500 *Acres of Land*, 236 F. Supp. 44 (S.D. Cal. 1964).

The case at hand does not present the "normal" inverse condemnation situation arising from unreasonable governmental regulation. *See Goldblatt* v. *Hempstead*, 369 U.S. 590, 594 (1972). Nor is the Government's action here quite the "normal" repeated action which again and again physically intrudes upon a plaintiff's property. *United States* v. *Dickinson*, 331 U.S. 745 (1947) (recurring floodings); *Barnes* v. *United States*, 210 Ct.Cl. 467, 538 F.2d 865 (1976). Rather, the Government is in rightful posses-

sion of Tract 83, but is totally denying plaintiffs access to those minerals, e.g., dolomite, to which they have a right. Denying access 100% of the time.

Generally, the Fifth Amendment requires the Government to have intended to take property before compensation is required. *Sun Oil Co.* v. *United States*, 215 Ct.Cl. 716, 770, 572 F.2d 786, 818 (1978). That intent, however, can be implied from the facts. *Id.* Thus, in inverse condemnation cases such as this, the ultimate test is whether the Government action is such that it "deprives the owner of all or most of his interest in his property." *Aris Gloves, Inc.* v. *United States*, 190 Ct. Cl. 367, 374, 420 F.2d 1386, 1391 (1970). As this court has stated, "The question of whether there is a fifth amendment taking cannot turn simply on general principles of law; it must be based on the particular circumstances of each case." *Id.* at 375, 420 F.2d at 1391. And the facts here are unusual.

The Government's actions in this case, in essence, constitute a series of incremental denials sufficient to constitute a permanent taking. *See United States* v. *Causby*, 328 U.S. 256 (1945). As early as 1969, prior to plaintiffs' acquiring their interest, the Government began asserting that the owners of reserved mineral rights had no legal rights to dolomite on Tract 83. Plaintiff James Mosby was advised orally on November 3, 1971, that permission to remove dolomite would be denied. Then, on November 18, 1971, permission was formally denied after Mosby's further request. When Congressman Charles Teague inquired, he also received notice that access would be denied to plaintiffs.

The record shows repeated requests for permission to enter and accompanying denials of permission by the Government. The situation is similar to that faced by this court in *Benenson* v. *United States*, 212 Ct. Cl. 375, 548 F.2d

939 (1977). While *Benenson* concerned overly extensive governmental regulation which resulted in a taking of the Willard Hotel in Washington, D.C., its principles are apt. In that case, plaintiffs were deprived of any commercially feasible use of their property by the vacillation of the Government which neither condemned the hotel nor allowed any development of that property. As then Chief Judge Cowen stated in his forceful opinion in *Benenson*, "[T]he Government's interference with the owner's use of his property may be so substantial and burdensome that a constitutional taking is implied." *Id.* at 388. The same type of situation is present here with the Government denying plaintiffs use of their mineral rights yet not condemning those property interests.

Obviously the Government may well have legal condemnation rights, but the condemnation process was never even broached with plaintiffs. Condemnation is not at issue in this case.

Our holding in the instant case is further bolstered by the United States Supreme Court's decision in *United States* v. *Gerlach Live Stock Co.*, 339 U.S. 725 (1950). There, the Government operation of the Friant Dam resulted in the deprivation of plaintiff's riparian rights to spring flooding of pasturage. That seizing of plaintiff's springtime high water was deemed the withholding of a property right and compensable. Similarly, the Government here has taken plaintiffs' mineral rights by withholding access to the deposits.

As a practical matter, the Government cannot allow plaintiffs to mine for dolomite on Vandenburg Air Force Base and continued denial of access for that purpose is certain. In order to quarry the dolomite, plaintiffs would require the use of military reservation roads to which defendant has indicated that no access would be allowed due

to its detrimental impact on base operations. The Government has taken this position despite the 1942 deed's explicit reservation of necessary privileges on roads and retention of easements. Furthermore, blasting operations would interfere with missile tracking radar systems, operation of the control station and Vandenburg's reservoir, and create hazards in missile launching operations.

In effect, the use of Tract 83 as a part of an air force base is incompatable with its use as a dolomite quarry.

In sum, we conclude that the permanent taking of plaintiffs' property interest in Tract 83 *vis a vis* the right to quarry and remove dolomite occurred on November 18, 1971,[8] for which plaintiffs are entitled to be compensated.

Finally, the issue of damages must be addressed. The trial judge, in his recommended opinion, found only a *temporary* taking of plaintiffs' mineral rights as opposed to our decision today that such rights were *permanently* abrogated by defendant. We are, therefore, constrained to remand this issue to our Trial Division for ascertainment of plaintiffs' damages based on the permanent deprivation of plaintiffs' interests. Our holding that plaintiffs are entitled to recover for a permanent taking of their mineral interests is not an intimation that any one method employed by any of plaintiffs' or defendant's experts for the purpose of determining just compensation has been adopted or approved by the court. We agree with the trial judge that

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[8]The trial judge found, and we agree, that defendant's formal refusal by letter was the date of the taking. This finding agrees with the principle that property is deemed taken when the Government substantially disturbs the owner's use and possession of the subject property. *United States* v. *General Motors Corp.*, 323 U.S. 373, 378 (1945); *R. J. Widen Co.* v. *United States*, 174 Ct. Cl. 1020, 1027-28, 357 F.2d 988, 993 (1966). *See also, United States* v. *Welch*, 217 U.S. 333 (1910) (denial of access may be a taking).

the value of plaintiffs' entire mineral interest was, in the absence of comparable sales, the fair market value of the minerals in place on the date of the taking. This value is to be determined by the trial judge on the basis of evidence that already has been produced by the parties, plus any relevant, non-cumulative additional evidence which either party may desire to offer.

CONCLUSION OF LAW

Upon the foregoing opinion and findings herein, the court concludes as a matter of law that plaintiffs are entitled to recover and judgment is entered to that effect. The determination of the exact amount of recovery is to be made in further proceedings under Rule 131(c).

APPENDIX E

United States Court of Appeals

FOR THE

Federal Circuit

JACK S. FOSTER, PATRICIA FOSTER, JAMES H. MOSBY, and VIRGINIA E. MOSBY, *Appellants,*	No. 84-724
v.	
THE UNITED STATES *Appellee.*	No. 34-75

JUDGMENT

ON APPEAL from the U. S. Claims Court.
This cause having been heard and considered, it is
ORDERED and ADJUDGED: AFFIRMED.

DATED: September 28, 1984

ENTERED BY ORDER OF
THE COURT
GEORGE E. HUTCHINSON,
Clerk

ISSUED AS A MANDATE: October 23, 1984

APPENDIX F

United States Claims Court

JACK S. FOSTER, PATRICIA FOSTER, JAMES H. MOSBY, and VIRGINIA E. MOSBY vs. THE UNITED STATES	No. 34-75

At the Claims Court held in the City of Washington, on the 20th day of October, A.D. 1983, judgment was ordered to be entered as follows:

Pursuant to the opinion of October 20, 1983, it was held that plaintiffs are entitled to recover.

IT IS ORDERED AND ADJUDGED this date, pursuant to Rule 58, that conditioned upon the plaintiffs executing a quit claim deed relative to any right to extract dolomite from the two identified deposits on Tract 83 and deliver same to defendant, that plaintiffs recover of and from the United States the sum of $28,000.00, with just compensation to include interest on that amount at the rate of 7.5 percent per annum from November 18, 1971, through December 31, 1975; 8.5 percent per annum from January 1, 1976, through December 31, 1979; and from January 1, 1980, to the date of payment at the rate established by the Secretary of the Treasury pursuant to Pub. L. No. 92-41 (85 Stat. 97) for the Renegotiation Board. In addition, the judgment shall include $186,278.96 as compensation for reasonable costs, disbursements and expenses.

A true copy of record.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the seal of said Court at Washington, this 20th day of October, A.D. 1983.

FRANK K. PEARTUS, *Clerk, Claims Court*

ATTEST: ALEX KOZINSKI, *Chief Judge.*

CHARLES W. WILLEY, ESQ., *Attorney of Record*
812 Presidio Avenue, Santa Barbara, CA 93101

APPENDIX G

In the United States Court of Claims

TRIAL DIVISION

No. 34-75

(Filed May 7, 1980)

JACK S. FOSTER, *et al.*

v.

THE UNITED STATES

PRETRIAL CONFERENCE MEMORANDUM — RULE 113

Pursuant to order, a pretrial conference was held in the above case in Room 605, United States Court of Claims, 717 Madison Place, N.W., Washington, D.C., on May 6, 1980. The conference convened at 10 a.m.

Appearances

For plaintiffs:	Charles S. Willey, Esq.
For defendant:	Gerald S. Fish, Esq.

1. This conference was called to clarify the status of the Rule 131(c) proceedings, to narrow the issues for determination and to indicate the type of evidence expected to be offered in the event there were further court proceedings. There was agreement that this proceeding was concerned solely with valuation of a permanent taking as of November 18, 1971, of plaintiffs' right to extract dolomite from two identified deposits on Tract 83. The case is not concerned with a valuation of plaintiffs' entire reserved mineral interest, of which there has been no taking; at the conclusion of this case plaintiffs will continue to be the owners of all other mineral rights reserved on Tract 83. There was a discussion of whether plaintiffs, when the recovery is paid, would be expected to deliver to the United States a deed suitably rtstricted to the property interest that had been taken.

2. Efforts by counsel to reach a settlement on the amount plaintiffs could recover were discussed. Counsel were instructed to explore further the possibility of settlement and to reexamine their respective positions in the light of reasonable expectations in the event the case proceeded to final determination by the court.

3. It was pointed out that the October 18, 1978, opinion set forth the trial judge's analysis of plaintiffs' entitlement to recovery on the basis of the record as it currently stands, namely that plaintiffs have not shown that any knowledgeable purchaser would have been willing to pay more than $23,250 for the right to extract dolomite from the Tract 83 deposits. Defendant's concession of that amount was accepted in the absence of any more definitive measure acceptable under legal and accounting principles. Further, evidence presented by plaintiff at trial was not persuasive, and its computation of the operator's intent was characterized as "blue sky speculation." Counsel were advised that the reasoning that applied on this record to a valuation of a temporary taking logically could be applied to valuation of a permanent taking, and that the trial judge was prepared to accept $23,250 as the amount to be recovered if counsel wanted to go forward on the basis of the record as it now stands. Plaintiffs were advised that the materials submitted pursuant to the January 7, 1980, order appeared to be subject to infirmities similar to that in evidence previously adduced and to contain assumptions that would be vulnerable under cross-examination. Plaintiffs stated the evidence intended to be adduced is probative and noncumulative and that counsel preferred to reopen the record, rather than go forward on a valuation of $23,250 established in the present record.

4. There was discussion of the Government's exposure to future litigation. The Government's assembly of land for Camp Cooke subject to a reservation of mineral rights in

the vendors exposes defendant to risks in the future from plaintiffs with respect to Tract 83 as well as from other holders of mineral reservations.

5. The type and quality of evidence expected to be adduced at trial was discussed. Plaintiffs' materials submitted pursuant to the January 7, 1980, order, do not appear to include cost elements that were noted in the October 18, 1978, opinion as appropriate to a capitalization of a future income stream. Cost of road construction for access to the dolomite deposits was cited as an example. Disposition of costs involved in relocation of the radar installations also was discussed. Elements of value numbered 1 through 4 on page 14 of plaintiffs' February 28, 1980, submission involve assumptions and speculative concepts that present difficult evidentiary problems. There are substantial differences in expert opinions now in the record as to the volumes and quality of recoverable dolomite in the deposits. The record now is deficient in statistics on market demand and costs involved in successful quarry operations. There is a need to update and supplement statistics on page 35 of the October 18, 1978, opinion to relate to November 18, 1971, the use of dolomite in California, California usage of riprap in tons, and dollar values.

6. Counsel were directed to undertake additional efforts to adduce evidence of sales of quarries that would be comparable to Tract 83 deposits. The treatment in the October 18, 1978, opinion of Chapman's comparable sales and the status of that evidence in a valuation of a permanent taking were discussed.

7. The Missile City Rock Corporation as it relates to plaintiffs' quarrying experience bears upon a projected cash flow analysis. Monetary results of plaintiffs' operations at the Missile City location are relevant to the question of an ability to derive income from quarrying operations on Tract 83.

8. The following schedule was established:

A. Defendant's April 2, 1980, submission indicates that four witnesses were to be called and that two of the witnesses will have appraisal reports. On or before June 6, 1980, defendant will submit to plaintiffs copies of its experts' reports to be utilized at trial as well as copies of any exhibits defendant intends to introduce.

B. On or before July 11, 1980, plaintiffs will complete their review of defendant's submission, and will complete deposition of any of defendant's proposed witnesses. On July 11, 1980, plaintiffs will notify defendant and the trial judge whether plaintiffs intend to submit a reply. If a reply is to be submitted, it will be submitted by July 25, 1980.

C. By July 25, 1980, each party shall have notified the other party and the trial judge of any additional witnesses to be called and have provided copies of any additional exhibits to be utilized.

D. Trial, anticipated to require approximately 10 days, will be scheduled to commence in Santa Barbara, California, on September 8, 1980. Plaintiffs' counsel will arrange for the courtroom in Santa Barbara.

9. Plaintiffs' right to attorney fees was discussed. Determination of the amount of attorney fees will be made after completion of proceedings on valuation and will be in accordance with the procedure outlined on page 66 of the October 18, 1978, opinion.

Counsel shall have 10 days to request additions to, or amendments of, this memorandum.

The conference concluded at 11:10 a.m.

KENNETH R. HARKINS, *Trial Judge*

APPENDIX H

AFFIDAVIT OF ROBERT L. CHAPMAN

State of California)
) ss.
County of Santa Barbara)

I, the undersigned, ROBERT L. CHAPMAN, being first duly sworn, depose and say that if called as a witness in this proceeding, I could and would competently testify as follows:

1. In 1976, I appraised the dolomite deposit which is the subject of this litigation, and in January of 1977 I appeared as the Government's primary valuation witness at the first trial in this case. At that time there was a dispute as to whether the taking which represented the inverse condemnation had occurred in November of 1971, or had occurred at the time of the 1977 trial.

2. In my appraisal and testimony,

I valued the subject mineral deposit as follows:

a) As of November, 1971	$23,250
b) As of 1977 trial	$29,250

For both of those valuation dates I added an additional $8,750 for potential oil and gas values, although at that time there had been no oil or gas exploration activities in the southern portion of Vandenberg Air Force Base where the subject deposit is located. I understand that after the first trial the Trial Judge restricted the evaluation and award to the dolomite deposit alone, so that the possible oil and gas value which I estimated at the time of trial are no longer in issue.

3. I am informed that following the January, 1977 first trial herein, the Trial Judge found that there had been a temporary taking of the subject dolo-

mite deposit in November of 1971 and awarded judgment of $23,250 (being exactly the amount to which I had testified as my 1971 valuation figure) as the damages resulting from the inverse condemnation.

3. By reason of facts which were not known to me at the time of my appraisal and testimony, I now believe my valuation of $23,250 was materially in error.

At the time of my trial testimony, I had no substantiated information that James H. Mosby claimed to have had a firm oral contract with Green Construction Company in November, 1971, for a minimum of 50,000 tons of rock at $4.00 per ton, for use on the Rincon Highway Project. I did not consider that claim because there was no substantiating evidence for the existence of the contract, the quantity contracted for, or

the price agreed to be paid. I have recently received and reviewed a copy of the February 17, 1984 Declaration of Eldon H. Haskell, a copy of which is attached hereto as Exhibit "I". I know Mr. Haskell, both personally and by reputation. At the time of the November, 1971 taking of the subject stone deposit Mr. Haskell was one of the largest and best known of the Santa Barbara County engineering contractors; i.e., those specializing in the building of roads, highways and associated improvements.

4. I am informed that after the conclusion of the first trial, at which I testified, the appellate division of the United States Court of Claims determined in its opinion of October 17, 1979, 607 F.2d 943, that the Governments November 18, 1971 refusal of access to allow plaintiffs to drill test the deposit resulted in a permanent taking

(as distinguished from a temporary taking) of the subject dolomite deposit, as of that date.

5. As Mr. Eldon H. Haskell's attached Declaration reflects, his engineering contracting firm had a private joint venture relationship with Green Construction Co. Everyone knew that Green Construction Co. was the general contractor on the project, but I was not aware that Green had joint ventured its general contractor's position with the E. H. Haskell Company.

6. If I had known of the facts reflected in Eldon H. Haskell's Declaration at the time of my appraisal and trial testimony in this case in February 1977, my valuation testimony would have been materially different, by reason of the following factors:

a) The Haskell Declaration corroborates the existence and terms of the

oral contract to which plaintiff James H. Mosby had previously testified. Had I known of that corroborating evidence at the time of my 1977 trial testimony, I could not have, and would not have, ignored that contract; and

b) The Haskell Declaration confirms the existence of a contract for a minimum of 50,000 tons, which is substantially more than the volume which I estimated could be sold from the subject deposit in any one year; and

c) It demonstrates that the market area may be larger than I had forecast. The Rincon Highway Project is located approximately 75 miles from the subject deposit. Yet the Haskell Declaration establishes that if the subject deposit could have been opened up in 1971 as a quarry, it could have and in fact would have competed in that larger market.

d) The Haskell Declaration confirms the existence of a contract for a sale producing $200,000, which contract was in existence at the very time of the taking. In fact, the access denial which constituted the taking was in connection with this Green contract. Hence, the value increment to the deposit which is deducible from that contract would not have been subject to any discounting to present value. Had I been able to confirm the existence of that $200,000 contract at the time of my trial testimony, I would not have placed a $23,250 value on the entire 25-year life of the deposit.

7. I have therefore concluded that my trial testimony underestimates the value of the deposit, by reason of facts which were not known to me, and that to the extent that the trial ourt judgments in both the first and second

trial were predicated on my testimony, that there has been a gross miscarriage of justice.

8. I have not been paid or otherwise compensated, directly or indirectly, by the plaintiffs or their representatives in this matter. I have executed this Affidavit of my own volition, after making the factual reviews outlined above.

IN WITNESS WHEREOF, I have executed this Affidavit at Santa Maria, California this 1st day of December, 1984.

Robert L. Chapman

ROBERT L. CHAPMAN

(Notarial verification is on the following page, due to spacing.)

STATE OF CALIFORNIA)
) ss
COUNTY OF SANTA BARBARA)

The foregoing Affidavit of Robert L. Chapman, consisting of nine pages, including this page, and dated this date, was subscribed and sworn to before me at Santa Maria, California this 1st day of December, 1984. The said Robert L. Chapman is known to me, or proven on the basis of satisfactory evidence, to be the person who executed the foregoing Affidavit.

Larry Harder

Notary Public

My commission expires on 3-28-87.

United States Court of Appeals

FOR THE

Federal Circuit

JACK S. FOSTER, PATRICIA FOSTER, JAMES H. MOSBY and VIRGINIA E. MOSBY, *Appellants,* vs. THE UNITED STATES, *Appellee.*	No. 84-724 Declaration of Eldon H. Haskell

I, the undersigned, ELDON H. HASKELL, hereby declare that if called as a witness in this proceeding I could and would competently testify as follows on the basis of my own personal knowledge:

1. For more than thirty years I operated a general engineering contracting business in Santa Barbara, California, specializing in the construction of roads and bridges.

2. In 1971 and the early part of 1972 a major highway reconstruction job called the "Rincon Project" was built. It started at Rincon Point (which is the common boundary between the southerly edge of Santa Barbara County and the northerly edge of Ventura County) and ran southerly for a long distance.

Green Construction Co., whose headquarters is in Des Moines, Iowa, was the primary general contractor for the job and Glen McAfee was Green's project supervisor.

3. Green Construction Co. had the contract for the Rincon job, but it had no previous local experience, and did not know local subcontractors, material sources, and the like. My construction company, E.H. Haskell Co., a California corporation (which did business as Haskell Construction Co.) entered into a joint venture with Green Construction Co. and that joint venture then acted as the general contractor for the whole Rincon Project. My firm did some fine grading, bridges, underground and paving. Green placed the riprap.

4. The Rincon Project involved widening a highway which had been originally built along the bottom of a large bluff, right at the edge of the Pacific Ocean. In order to widen it we had to make extensive fills into the ocean over a period of several miles. The outer edge of this fill had to be faced with armor stone which was dense enough and in large enough sizes to withstand the pounding wave action of the Pacific Ocean, particularly during storms. We were having difficulty locating enough armor stone to put on the ocean-side facing of this highway fill. Some time in latter 1971 Glen McAfee told me that he had learned of the existence of a large dolomite deposit just inside the boundary of south Vandenburg Air Force Base, from which he thought we could get a large quantity of the armor stone we needed. I visited the deposit, which I understand is called Tract 83, and which was then leased by Dr. James Mosby and his partner, Jack Foster. I had previously seen the deposit because I built Arguello Boulevard for the Air Force. That Boulevard immediately abuts the southerly edge of the deposit, which is located at the northeasterly intersection of Arguello Boulevard and LaSalle Canyon Road.

5. When I visited the deposit with Glen McAfee he told me he had made an oral agreement with Dr. Mosby to take a minimum of 50,000 tons of armor stone from that deposit, at a price of $4.00 per ton. Glen McAfee told me that Mosby had asked permission from the Corps of Engineers to drill-test the deposit, and that based on his conversations with someone on the Base he expected that permission to be forthcoming.

6. This Tract 83 deposit is located about 75 miles from the Rincon Project job site.

7. Mosby and Foster were never able to obtain Government approval for access to their dolomite deposit, so none of it was ever used on the Rincon Project. As a result of not being able to get the rock from them, Green Construction Company ended up getting the armor stone from six different quarries, scattered over a substantial area of Southern California. Two of the six quarries from which we got armor stone for the Rincon job were at Riverside and at Corona, both of which are in Riverside County. Stone from both of those quarries had to be hauled through the middle of Los Angeles traffic, for a distance roughly double the distance between Rincon and the Tract 83 Vandeberg deposit. The $4.00 per ton price which Glen McAfee agreed to pay to Mosby and Foster was the same price Green paid to William Schmidt for armor stone on that same job, and his price was on the floor of his quarry. It paid the cost of loading and transporting the stone to the Rincon job site.

8. I always wondered why we were never able to get any stone from the Mosby-Foster deposit. It looked like an ideal quarry site to me, and we would have much preferred to use it to the maximum extent on the Rin-

con job, because we would only have had to haul it half as far as we did the material which we ultimately bought from Riverside and Corona.

I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct and that this Declaration was executed by me at Santa Barbara, California this 17th day of February, 1984.

ELDON H. HASKELL